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ABSTRACT

The key to developmentally appropriate practices is to let a child construct his or her own knowledge through interactions with the social and physical environment. Because the child is viewed as intrinsically motivated and self-directed, effective teaching capitalizes on the child's motivation to explore, experiment, and to make sense of his or her experience. This report, which focuses on the above points, attempts to provide a synthesis of the literature relevant to developmentally and culturally appropriate practices. It also discusses future plans of the Child and Family Program of the Northwest Regional Educational Laboratory. This report is divided into ten main topics: (1) Developmentally Appropriate Practices: An Overview; (2) Early Literacy; (3) Integrated Curriculum: Themes, Projects, Webs, and Inquiry; (4) Mathematics: Basket of Facts or Search for Meaning? (5) Coverage, Multiple Intelligences, and Standardized Tests; (6) Multiage Grouping: A Community of Learners; (7) Bringing it All Back Home: Family/School/Community Partnerships; (8) Enhancing Continuity for Children and Families; (9) Culturally Responsive Teaching; and (10) Children with Disabilities. Contains 262 references. (MOK)

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DEVELOPMENTALLY APPROPRIATE AND CULTURALLY RESPONSIVE EDUCATION: THEORY IN PRACTICE

Rebecca Novick, Ph.D.

PS 02 4152

April 11, 1996

Child and Family Program
Helen Nissani, Director

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INTRODUCTION

> The purpose of education is to die satiated with life. Oscar Kwageley, Yupik Eskimo scientist, cited in Delpit (1995).

It has been nine years since the National Association for the Education of Young Children (NAEYC) published guidelines for developmentally appropriate practices (DAP) for children from birth to eight (Bredekamp, 1987). These guidelines were introduced in order to (a) enhance the quality of educational experiences for young children by tying child development knowledge to early childhood practices, and (b) foster professional identity and visibility for the field of early childhood education in order to serve political and advocacy aims in negotiating with the educational establishment and the public-at-large (Johnson & Johnson, 1992).

Although the guidelines reflected a consensus definition of developmentally appropriate practices involving the input from thousands of early childhood professionals, a number of controversies, confusions, and myths surrounded their arrival in the field. Attacked as structureless and non-academic by some educators, "an excuse not to teach in first grade," the guidelines were seen by some educators as being far too prescriptive and discouraging of reflection. A lively debate was touched off in which the appropriateness of the guidelines for all children (particularly for children from culturally diverse families, children with disabilities, and children at risk for school failure) was examined (Johnson & Johnson, 1992; Kostelnik, 1992; New & Mallory, 1994; Novick, 1993).

The debate is far from over and, given the nature of the field of early childhood, is not likely to be over soon. Clifford Geertz (1973) describes anthropology as "*a field whose progress is marked less by a perfection of consensus than by a refinement of debate. What gets better is the precision with which we vex each other*" (p. 29). The statement is equally relevant to the field of early childhood. Although a discussion of the controversies surrounding DAP is beyond the scope of this paper, NAEYC's response to their critics indicates that early childhood educators take seriously their view of DAP as a working hypothesis which continually changes through a dynamic process of questioning and reflection on practice. Revision of DAP to help all children reach their potentials as learners is an on-going process.

Influence of DAP

A growing body of research from such diverse fields as developmental psychology (Bruner, 1972; 1983; 1986; Sroufe, 1979; 1986), cultural anthropology (Heath, 1983), linguistics (Cazden, 1981; Halliday, 1975), early childhood education (Bowman, 1994; Clay, 1966; Kagan, 1992; Katz, 1993) and brain-based research (Caine & Caine, 1994; Hart, 1975) has provided a rich literature to inform best practices in the field of education. Yet, according to Darling-Hammond, professor of education at Columbia University's Teachers College, " Our school system was invented in the late 1800s, and little has changed. Can you imagine if the medical profession ran this way?" (Hancock, 1996).

If change has come slowly for middle and secondary-age children, during the last ten years, the field of early childhood education has seen a great deal of change in educational practices, due, in large part to the influence of DAP. Cooperative learning, integrated curriculum, whole language, family

involvement, authentic assessment, and "hands-on learning" are just a few of the buzz words that have become part of the popular vernacular and are increasingly influencing classroom practices. Changes are being implemented, despite the difficulties presented by insufficient time for study, practice and reflection, and confusions regarding the practices themselves. Meier (1995) observes:

> Unlike most industries, we can't retool by closing down the factories while we build new ones and send all the workers back to school for retraining. We need to do everything at once. It's driving while changing the tires, not to mention the transmission system (p. 151).

If it is our growing knowledge of human development that has spearheaded change in educational philosophy, it is teachers, often in concert with leadership from principals and district personnel, who have turned these theories into learning experiences for children. Over the last five years, the Child, Family, and Community Program (CFC) has worked in partnership with a number of innovative Northwest schools, studying, discussing, and documenting the challenges, as well as the opportunities, presented by these educators' efforts to change their educational practices. Over the next five years, the CFC will continue to work with innovative educators to develop papers and materials that will help other educators change their pedagogical practices to reflect what we know about how children learn and develop.

The purposes of this report are to:

- Provide a synthesis of the literature relevant to developmentally and culturally appropriate practices
- Discuss the next steps in the project

DEVELOPMENTALLY APPROPRIATE PRACTICES: OVERVIEW

The child is the most avid learner of all living things. (Ashely Montague)

Based on theories of Dewey, Vygotsky, Piaget, and Erikson, developmentally appropriately practices reflect an interactive, constructivist view of learning (Bredekamp, 1987; Bredekamp & Rosegrant, 1992). Key to this approach is the principle that the child constructs his or her own knowledge through interactions with the social and physical environment. Because the child is viewed as intrinsically motivated and self-directed, effective teaching capitalizes on the child's motivation to explore, experiment, and to make sense of his or her experience.

Children's spontaneous play promotes learning by providing opportunities for concrete, hands-on experiences. These experiences not only help the child to master his/her environment but allow the child to develop the capacity for self regulation, abstract thought, imagination, and creativity. According to Vygotsky (1978), play and practical activity lead development by providing "a stage between the purely situational constraints of early childhood and adult thought, which is less context bound."

In this interactive approach to learning, the role of the teacher has been variously described as one who guides, observes, facilitates, poses problems, extends activities, and in Vygotsky's (1978) words, "creates a natural moment" in the child's environment. Rather than a dispenser of knowledge, the teacher acts as a "dispenser of occasions" (Phillips, 1993). A major theme in DAP is to make learning meaningful for the individual child, using practices which reflect both the age and individual needs of the child. A strong emphasis is placed on learning to think critically, work cooperatively, and solve problems.

Curriculum

Research has demonstrated that the human brain is a pattern detector; it works best when processing meaningful material (Caine & Caine, 1990). Thus, in a developmentally appropriate classroom, language development and emerging literacy are encouraged through the use of whole language approaches, which embed learning throughout the day in meaningful activities. To reflect the inter-relatedness of developmental domains, curriculum is integrated, using strategies which include learning and activity centers, and conceptual organizers, or thematic units. These themes or projects link together content from various subject areas and depict the connections that exist across disciplines.

Mathematics, rather than being thought of as a set of skills and procedures that children must acquire, is seen as the science for searching for order and pattern in the world around us (National Research Council, 1989). In order to understand how numbers apply to real life, children are given many opportunities for hands-on experience with pegboards, blocks, number lines, and materials for counting and measuring. Rather than memorizing isolated facts and rules, children actively participate in their learning, inventing their own procedures for solving computational and story problems. In Kamii's words (1989), in the constructivist approach, children "reinvent arithmetic."

In order to make sound educational decisions that effect the child, authentic assessment, which reflects the child's performance during typical activities in the classroom, is employed. Assessment practices utilized in developmentally appropriate classrooms include collections of children's work in portfolios, tape recordings of their reading, teacher observations, and summaries of children's progress. Integral to the assessment process is the opportunity for both children and their parents to participate in both evaluation and goal setting.

Citing social, cognitive, and emotional benefits for children, a number of early childhood educators advocate for mixed-age grouping (Katz, Evangelou & Hartman, 1990; Miller, 1994). These heterogeneous groupings not only provide opportunities for children of differing ages and abilities to work and play together, but they facilitate continuity for children by allowing children to stay with the same peer group and teachers for several years. Children have the opportunity to develop a relationship with a caring adult and with their peers.

Multiple Intelligences

The increasing recognition that children have and should develop multiple ways of "seeing" and "knowing" has provided an impetus for schools to expand the curriculum beyond the teaching of logical/mathematical, and verbal knowledge to include the "multiple intelligences" that make up the classroom (Gardner & Hatch, 1989).

In a developmentally appropriate classroom, the development of "aesthetic literacy" is encouraged through the exploration of poetry, dance, painting, and music.

In addition, the appreciation of multiple and diverse ways of seeing and "making sense" of the world is encouraged through the recognition and celebration of multicultural diversity. Multicultural education is seen as a perspective that should be integrated throughout all subject areas. Not only does such a curriculum help all children to develop cultural sensitivity and understanding, but it helps children from culturally diverse backgrounds connect the unfamiliar (the school culture) with the familiar (the home culture).

Bowman (1992) describes culture as a prism created from shared meaning; members of a cultural group see the world from a different perspective, making sense of their experience in different ways. The absence of continuity and congruence between the child's home culture and the school--an absence of shared meaning--may interfere with children's competent functioning in the new setting. Emphasizing the role of the teacher as co-constructor of knowledge, Bowman and Stott (1994) suggest that teachers must bridge the gap between the culture of the home and school by using interactive styles and content that are familiar to children, thus establishing new and shared meaning: "When teachers plan experiences that connect them to their children through understanding and respect, they can 'make meaning' together" (p. 131).

A Community of Learners

Research on brain development has provided new insights into the elegance and complexity of the human brain. Far from being a blank slate or an empty vessel that is gradually filled up with knowledge, the brain is designed as a pattern detector; perceiving relationships and making

connections fundamental to the learning process. Because thoughts, emotions, imagination, and predispositions operate concurrently and are interrelated (Caine & Caine, 1990), in a developmentally appropriate classroom, schools attend simultaneously to children's intellectual, social, and ethical development (Lewis, Schapps & Watson, 1995). Based, in part, on the writings of educator and social critic John Dewey, proponents of this approach have offered the metaphor of "schooling for democratic living" to inform classroom practices. In such a democratic classroom, children learn, in Eisner's words (1991) to "develop an ethic of caring and create a community that cares."

In short, in a developmentally appropriate classroom, learning involves the "whole child" and addresses all four components of learning identified by Katz (1988): knowledge, skills, dispositions, and feelings. The curriculum strives to help children become lifelong learners, who can think critically and imaginatively, ask meaningful questions and formulate alternative solutions, appreciate diversity, work collaboratively, and perhaps most importantly, have the capacity to form caring relationships with others.

In the following sections, the major concepts, movements, and practices associated and compatible with developmentally and culturally appropriate practices are described in more detail. They include: early literacy and whole language perspectives, integrated curriculum, a constructivist approach to mathematics, multiage grouping, authentic assessment, family and community involvement, and culturally responsive teaching.

EARLY LITERACY

> Word meanings are the consequences in baby of what mother and baby feel and express. (Dore, 1985)

As discussed earlier, research on brain development has provided evidence that language, social and cognitive development are essential aspects of each other. Increasingly, the acquisition of oral language is regarded as the most significant milestone in children's cognitive development. Language does not merely reflect thought; it is, in Vygotsky's words, "the nurse and tutor of thought," providing a schema for understanding and interpreting experience, and, as Dewey noted, providing a means "to sort one's thoughts about the world."

Because of the overriding importance of oral language acquisition for the development of the young child and because of the influence of current theories of language development on the teaching of reading and writing, a discussion of the major findings on this topic are presented in the following section.

Language Development

Discovering how children learn language has fascinated generations of philosophers and linguists. Whereas William Burroughs proposed that language is a virus from outer space, two somewhat less inventive, but more comprehensive, theories of language development were proposed during the first half of this century. The behaviorist, or empiricist associationism learning theory, delineated by B. F. Skinner in *Verbal Behavior*, conceived of language as "just another set of responses," which were learned by associating words with their meanings; learning was aided by imitating a model and being reinforced for correct responses.

In contrast, Noam Chomsky's hypothesis, based on nativism, proposed a universal grammar, or innate "linguistic deep structure," in the mind. In order to become competent language speakers, children needed only to be exposed to language. No particular effort on the part of caregivers to facilitate language development was considered necessary (Bruner, 1983). As psychologist George Miller put it, "We now had two theories of language development, one of them, empiricist associationism, was impossible; the other, nativism, was miraculous" (Cited in Bruner, 1983, p. 34).

In recent years, a broad-based approach, usually referred to as the "interactionist perspective," has emerged as the most influential theory in the field. Its basic premise is that at birth, infants are psychologically prepared to learn to talk and learn to do so within the context of reciprocal, social interactions with caregivers. Research is now verifying what mothers and fathers have always known: from birth, the infant is profoundly social.

Research has shown preferences of the newborn infant for a human face-like gestalt (Fantz, 1963), a feminine voice, and maternal odor (MacFarlane, cited in Cramer, 1987). An infant can remember and respond differently to the smell, voice, and face of the mother as early as the first few days of life. A study by DeCasper (cited in Associated Press, 1992) demonstrated that infants hear the

mother's voice and are aware of varying intonations in speech before birth. In this study, several mothers read to their in-utero infants, each reciting a different Dr. Seuss story. At three days old, when they were read several stories, the infants preferred the story which had been read to them before birth.

Discussion of the optimal environment for stimulating language development generally identifies a pattern of responsiveness to the child as the crucial variable. Children learn language best in an atmosphere of psychological reassurance, with high levels of caregiver affection, acceptance of what the child is able to do, and attention to the child's focus of interest. Language development begins with mutual eye contact and reciprocal smiling. During these early caregiver-child interactions, social routines are first established and the basic rules of human interaction are learned (Bruner, 1983).

Bruner (1978) suggests that it is the infant's success in achieving joint attention with caregivers that leads him or her into language. While at first, mothers follow the infant's gaze and comment on what the child appears to be observing, by four months, most infants can follow an observer's line of regard. The infant, then, is predisposed to have competent interactions with the social environment, *provided that the social environment is one that promotes competence*. Through interactions with significant caregivers and later, peers, infants and young children develop not only language and other skills, but a sense of self-efficacy.

According to Vygotsky, word meanings are inherently social and, with development, become personalized as the child comes to "possess" them as his or her own (Nelson, 1985). A conversation between Alice and Humpty Dumpty in Lewis Carroll's *Through the Looking Glass* illustrates this concept:

> "*When I use a word*," said Humpty Dumpty, "*it means just what I want it to mean - - neither more nor less*." "*The question is*," said Alice, "*if you can make a word mean so many things*." "*The question is*," said Humpty Dumpty, "*which is to be master -- that's all*." (Carroll, 1946, P. 47)

Undoubtedly, Humpty Dumpty represents an extreme case; however, the role of negotiation in language development appears to be well established (Bruner, 1983; Nelson, 1985). Bruner points out that in early language exchanges, mothers typically operate on the assumption that "no speaker is entirely ignorant." Although frequently they do not know what their children are trying to communicate, or whether their own speech has been understood by their children, "they are prepared to negotiate in the tacit belief that something comprehensible can be established" (1983, p. 86). Called variously inter-subjectivity (Trevarathen & Hubley, 1978), "jointly created little worlds" (Bruner, 1986), interfacing of minds (Bretherton, 1988), and developing a "mutual faith in a shared world' (Rommetveit, 1972, cited in Emde, 1987), this shared meaning appears to be a prerequisite for meaningful exchange.

The following exchange reported by Bruner (1983, p. 87)) between twenty-two-month-old Richard and his mother provides an example of the importance of negotiation for the development of shared meaning. They are reading a book together.

Mother: What's that?

Child: Ouse.

Mother: Mouse, yes. That's a mouse.

Child: More mouse (pointing to another picture).

Mother: No, those are squirrels. They're like mice, but with long tails. Sort of.

Child: Mouse, mouse, mouse.

Mother: Yes, all right, they're mice.

Child: Mice, mice.

Bruner observes:

> On later occasions, doubtless, the negotiations will continue and Richard will eventually settle on a reasonable referential handling of rats and squirrels . . . Children depend upon such corrective possibilities in the linguistic community they have entered. It starts early, as we have seen, and it can become strikingly complicated very early (p. 88).

In an optimal language learning environment, one that promotes both language acquisition and a positive sense of self, children are allowed to take responsibility for their own learning. Cambourne (1987) points out that no parents ever say, "Our pride and joy has not learned the passive/negative transformation yet. So for the next five weeks we'll teach him that. Then we'd better got onto the embeddings involving relativism and adverbial conjoiners" (p. 7). Nor, in his three year study of parent/child interactions, did parents expect their children to use the correct form, as soon as they heard it:

> They knew that "baby" talk may persist for weeks, the goed and comed and other immature attempts at communication would continue until the child decided to change. No exasperated pressure of the kind: "Look, I've modeled the auxiliary a dozen times now--when will you get it right?" was ever given (p. 8).

Instead, caregivers of children who are confident oral language learners interpret their children's communicative attempts as meaningful, expand on their utterances, and treat them as competent conversationalists, long before children say their first recognizable words. They provide a language rich environment, where "meaningful spoken language washes over and surrounds children" (Cambourne, 1987), from birth and (as the DeCasper research demonstrates) even before. Rather than serving as reinforcer and corrector, adults act as "providers, expanders, and idealizers" of language (Bruner, 198). Because children are motivated to learn by "doing something with words in the real world" (Bruner, 1983), grammar is learned, not as an isolated skill, but in a meaningful conversational context.

Research in how oral language develops has greatly influenced our understanding of how children learn written language. Because oral language is regarded as the cornerstone of reading development, proponents of whole language and emergent literacy perspectives view literacy as beginning in caregiver/infant interactions. Oral and written language are seen as interrelated and developing simultaneously, each reinforcing and transforming the other. In this view, the

underlying process of learning written and oral language is the same; like oral language, written language is best learned through actual use in a social context. Schickedanz (1986) argues that we have overestimated the extent to which oral language learning is natural, while we have underestimated the extent to which written language learning requires formal instruction.

Whole Language And Emergent Literacy: Theory In Practice

Although the behaviorist view of language acquisition is long outmoded, this view still greatly influences the methods and strategies that are used to teach reading and writing (Edelsky, Altwater & Flores, 1991). Reading is typically regarded as a "decoding" process, in which children learn to read by associating print with sound and printed words with their oral counterparts. Learning is facilitated by direct instruction, practice and reinforcement, which strengthen the associations until they become automatic or habitual.

Because behavior (in this case, reading behavior) is regarded as the sum of its component parts, learning the alphabetical code and word recognition are often taught as isolated skills, rather than in the context of reading or writing. Crawford (1995) sums up the behaviorist position: "The act of reading (and writing) can be broken down into a series of isolated skills, which can be arranged into a hierarchy, taught directly, and then brought back to the whole" (p. 78).

In contrast, the core premise of whole language is that, just as we learn language through participating in actual conversations, reading and writing are learned through actually reading and writing. In Baron's (1990) words, we learn to read and write the way we learn to talk. As in oral language leaning (in which rules are learned within the context of a meaningful conversational context), rules for decoding, spelling, and punctuation are learned through use, in the context of reading and writing meaningful texts. Frank Smith points out that there are far too many rules to learn through didactic teaching: "What is learned is too intricate and subtle for that, and there is too much of it. There is just not enough time" (Smith, 1983, p. 561).

Research on brain development has enhanced our understanding of how the brain processes information. Because the brain is designed to perceive and generate patterns, the brain resists learning isolated pieces of information that have no discernible pattern, such as learning telephone numbers, nonsense syllables, and isolated rules and conventions. Concentrating too heavily on the storage and recall of unconnected facts is a very inefficient use of the brain (Caine & Caine, 1990). Proponents of whole language argue that by practicing skills in isolation from their use, the skills become decontextualized and meaningless:

> It would be as if one could learn to ride a bike by practicing balancing, steering, and braking separately from one another, without ever getting on the bike and riding it. Authentic use is the condition under which learning to read or talk (or to ride a bike) occurs. And in authentic use parts are not discrete; they influence each other. (Steering that bike is not separate form pedaling either!) (Edelsky, Altwater & Flores, 1987, p. 37).

Thus, written language, rather than being a process of "getting the words and getting them right" (Adams, 1990) is a process of meaning construction. As Brown, Collins, and Duguid (1989) observe, "words and sentences are not islands, entire unto themselves." They gain their meaning

within the context of their use. Instead of "extracting" meaning from print, readers construct their own unique interpretation of the text, based on their knowledge and past experience (Rosenblatt, 1989). Smith describes text as a "two-sided mirror rather than a window, with writers and readers unable to see each other but gazing upon reflections of their own minds" (1982, p. 87).

Central to this interpretive approach is an emphasis on the social aspects of literacy: children become literate through dialogue with peers and responsive adults. In a whole language classroom, language is kept whole, useful, and meaningful; rather than a focus on teacher methodology, the starting point is with children, their interests and understandings. As Ira Shor (1992) observed, "What students bring to class is where learning begins. It starts there and goes places."

Creating a reading/writing classroom. A central premise of whole language and emergent literacy theories is that children come to school with much knowledge about literacy. Families of children who read early and "naturally" typically provide a language and "print rich" environment that fosters the child's interest in literate activities. Children's efforts at reading and writing are accepted with interest and enthusiasm and enhanced by adult questions and encouragement. Adults and older siblings frequently read to themselves and out loud to infants and children, demonstrating the importance of literacy, as well as its enjoyment. Researchers have found that extensive story-reading experience during the preschool years is strongly correlated with successful literacy development during the elementary school years (Schickendanz, 1986).

Teachers who utilize a whole language approach in teaching young children, strive to create a classroom environment similar to the home environment that has been shown to be optimal for natural literacy development. Such a classroom is both "rich in physical resources and social mediation." (Schickedanz, 1986, p. 4). While the goal of preschool and kindergarten is not to teach children to read and write, by providing multiple opportunities for children to engage in storybook reading, children gain an insight that is fundamental to learning to read: *print makes sense*. Schickedanz (1986) notes that "if we expect print to make sense, we can predict the text as we read along and monitor our decisions about what words are there" (p. 42). By listening to story books and paying attention to what the story is about, children develop the expectation that reading, rather than simply decoding unrelated words, is a meaningful activity.

As children grow and develop, they become increasingly adept at retelling the text accurately and progress from thinking that the pictures are read, to knowing that print can be read without reference to pictures. But as Schickedanz (1986) notes, "it is the *relationship* between speech and print that is the puzzle" (p. 44). The simple and predictable text found in many children's story books, combined with repeated readings, helps children develop an oral knowledge of the text, aiding the child's attempts to match speech to print. In a whole language classroom, a cozy reading corner, with large cushions and a variety of books, invites children to read individually and with peers, enhancing both literacy development and the enjoyment of reading.

Emergent literacy philosophy emphasizes the connections and interrelationships between reading, and writing, and oral language development (Crawford, 1995). Creating a "print-rich" environment provides multiple ways for children to discover relationships between oral and written language. Labels, signs, charts, calendars, and lists that children can help create, not only help to organize the environment, but also provide opportunities for children to read and write in functional and meaningful ways.

Literacy enriched activity centers encourage children to further explore the relationship between reading and writing. With the addition of telephone books, materials for writing letters and lists, and books to read to dolls, a housekeeping corner can provide numerous opportunities for children to explore print. A nearby grocery play center, complete with newspaper ads, cash register receipts, coupons, typing paper, inventory sheets, pads of paper, and toy paper money (Rybcezynski & Troy, 1995), provides a natural complement. Rybcezynski & Troy observe: "As children play at being "grown-ups," who use reading and writing for real reasons in a particular environment, they uncover some of the mysteries of printed language" (p. 7).

Scribbling, writing, and spelling. Whole language supporters view written language learning, not as accumulation of ready-built parts, but as a developmental process (Edelsky, Altwerger & Flores, 1987). Spelling development is believed to begin the first time a child picks up a writing instrument and makes a mark on a page (Griffith & Leavell, 1995, 96). Clay (1975) describes three stages of scribbling: (a) random scribbling for pleasure, that may have certain characteristics of print, e.g., rectangular rather than circular; horizontal, rather than vertical; (b) scribbling with the understanding that symbols can convey meaning (c) creating mock messages, in which mock letters and beginning letter forms appear.

From these forms, children progress to writing the alphabet letters and eventually to invented spelling. However, even when children are capable of writing a number of letters, they may use all of these strategies to create messages. Like infants and toddlers who can speak a number of clearly enunciated words but who use a mixture of jargon and words to approximate sentences, young children may use a mixture of scribbling and writing when they write long messages.

In this developmental view, invented spelling is seen, not as a sign of incompetence, but as an important stage of writing. Schickedanz (1986) explains:

> After much exploration, and after much exposure to print, children discover that letters represent phonemes, and not some larger unit of speech, such as a syllable or a word. This is a very important discovery...Many preschool teachers know that the words children first create when they try to represent words in terms of their sounds do no resemble conventional spellings. Children may write "kt" for cat, "grl" for girl, and "mdpi" for mudpie. What may not be readily apparent is how systematic these invented spellings are and how much they reveal children's keen ability to detect similarities and differences between the ways various sounds are produced (p. 88).

Caregivers typically appreciate babies' communicative attempts and remember babies' invented words fondly (Who is not charmed by cross-eyed bears named Gladly or a bald man who becomes "a man with a barefoot head"?) (Nelson, 1989). However, because teachers frequently expect children to conform to conventional standards in writing, with no developmental stages in between, invented spelling is often looked at as something to overcome (Schickedanz, 1986).

In a whole language classroom, teachers encourage young children to move to standard spelling by modeling writing and providing an environment rich with opportunities to explore purposeful and meaningful print. Even intermediate-age children are encouraged to use invented spelling in a first draft, using standard spelling when their writing is for others (Griffith & Leavell, 1995, 96). In this way, children are encouraged to explore the form of written language, much as they explore oral

language: by generating and evaluating hypotheses, building upon their understandings of how words are spelled (Nelson, 1989).

Schickedanz (1986) points out that learning how to write involves much more than learning to write alphabet letters (although it does, of course, include this ability). Learning to write also involves knowing (a) how writing and speech relate, (b) how form and style vary depending on the situation, and (c) how a reader will react to what we have written (p. 72). Although these abilities require a complexity of thinking beyond the reach of most preschool and kindergarten children, the development of these competencies can be enhanced by accepting what children are able to do. Encouraging young children to write often and freely, without requiring them to meet conventional standards, helps them to create their own strategies for matching print and speech. In addition and most importantly, when teachers value children's early literacy efforts, they enhance children's capacity to see themselves as writers.

Proponents of emergent literacy and whole languages approaches view writing as a dynamic process, "an active, communicative, social, meaning-making enterprise" (Pappas, Kiefer & Levstik, 1990). Rather than an emphasis on the component parts (e.g., the formation of letters, the spelling of words, grammatical conventions), the emphasis is on helping children to clarify thoughts, discover new meanings, and use writing to communicate. The writing process typically involves the following steps: topic selection, prewriting, composition of a first (rough) draft, sharing the draft with friends and readers, revising, editing, illustrating, if appropriate, and final publication (Moll & Whitmore, 1993). However, Pappas, Keifer, and Levstik (1990) caution that the writing process is not a lock-step sequence of events; rather, the stages simultaneously affect and interact with each other.

In a reading-writing classroom, a writing center with space for three or four children to work comfortably, provides a space for children to make greeting cards or books, write notes, letters, or stories. The center includes a variety of writing supplies, including many types of writing tools, cards, paper, stencils, stapler, hole punch, magic slates, child and chalk board. Because teachers do not require children to have mastered the alphabet, reading, or standard spelling before beginning to write, children of all ages have many opportunities to experiment with writing in a risk-free environment.

Summary

The strategies used in whole language classrooms are many and varied, reflecting teachers' creativity and experience. In a typical classroom, multiple opportunities for children to actively participate in activities that have meaning in the child's daily life are provided, including: shared book experiences, designed to resemble story time at home; collaborative reading with peers; literacy enhanced activity centers; open-ended discussions; dramatization of read-aloud stories; individual and group narration of stories, based on actual or imagined experience; reading and writing centers; and interactive journals.

Strickland (1990) described the critical elements of a reading-writing classroom:

- Literacy learning is not relegated to a specific time of day. Rather, it is integrated into everything that occurs throughout the day.

- There is an inviting reading center filled with books within reach of children.
- There is a writing center, with plenty of writing tools, paper, magnetic letters, and an alphabet chart at the eye level of the children.
- Printed materials are everywhere; it is a "print rich environment."
- Adorning the walls are numerous charts depicting graphs, poems, lists, and other important information related to the theme currently under study.
- Read aloud time occurs at least twice each day.
- Children are encouraged to scribble and invent their own spelling; the emphasis is on process rather than product.
- Teachers model reading and writing and their enjoyment of it.
- Assessment and instruction are integrated and assessment relies primarily on systematic observation and analysis of children's classroom participation and work.

Classrooms which utilize whole language and writing process approaches have a workshop atmosphere (Edelsky, Altwerger & Flores, 1987). Children read and write individually and in groups, sharing information, tips, and insights. They are encouraged to take ownership of their learning and are given ample time to study a topic in-depth, taking advantage of many different resources, found in the home, school and community.

A responsive and encouraging classroom environment, where children have many opportunities to engage in literacy activities, engenders not only literacy development, but positive feelings toward reading and writing. When children see written language as useful, enjoyable, and relevant to their daily lives, they are well on their way to becoming life-long learners. As Eisner (1991) notes, "A much better index for school achievement than standardized test scores is the level and quality of the conversations children engage in away from their classrooms (p. 11).

Dangerous Dichotomies

Whole language and emergent literacy perspectives, solidly grounded in linguistics, developmental psychology, and brain-based research, have become a pervasive force in American education. In many classrooms, teachers have abandoned traditional approaches and are implementing literature-based programs, designed to cultivate a love of books and fluency in writing.

These changes have not come without controversy. Attacked as yet another interesting "fad," a "philosophy of osmosis," by some educators (Daniels, 1995), whole language proponents have sometimes responded in ways that encourage the reduction of complex issues into either/or opposites (Moorman, Blanton & McLaughlin, 1994). The debate often appears to be polarized into two warring camps: reading and writing are a matter of (a) "getting the words and getting them right; the sense will take care of itself" versus (b) "take care of the sense; the words will take care of themselves." Research has demonstrated that neither of these extreme approaches works for all children.

Learning to read and write. As discussed earlier, there is much evidence that children who come from families who place a high value on literacy and who have a rich oral language vocabulary and extensive experience with story book reading tend to be early and competent readers. Schickedanz (1986, p. 38-39) notes that by the time such children enter school, they have already learned:

1. **How books work:** Books printed in English are read from front to back, left to right, and top to bottom.
2. **Print should make sense:** The discovery that words are placed together in meaningful ways is fundamental to learning to read.
3. **Print and speech are related in a specific way:** Story books provide many different samples of print for children to practice matching speech to print.
4. **Book language differs from speech:** "Written language, unlike oral language, must carry the total load of meaning without ambiguity. It is more formal, more complete, and more textured that spoken language . . ." (Holdaway, 1979, p. 54).
5. **Books are enjoyable:** Positive feelings toward reading help children read often and for pleasure, persevering even when frustrated by a difficult text.
6. **Patterns of interacting characteristic of behaviors expected in a school setting:** Children gain confidence and competence when they can relate their knowledge to the school setting.

It is easy to see why children who enter school with these competencies are at a distinct advantage over children who have little experience with books. However, even with such advantages, reading remains somewhat of an "unnatural act" (Stanovich, 1986). Although all children (in the absence of severe disability), even in far from optimal language learning environments, learn to use language in a functional way, merely placing children in a "print rich" environment does not ensure acquisition of reading and writing skills. Some instruction in decoding, spelling, and punctuation, within the context of authentic reading and writing experiences, is usually necessary.

Fortunately there are many excellent books and articles that provide teachers with a sound philosophical basis for literacy instruction and practical methods for implementing it (see Appendix A). They include many specific strategies that teachers can employ to help children learn to match print to speech, enhance phonemic awareness, spell, and cultivate comprehension, writing, and editing skills. From a synthesis of research on comprehension instruction, Fielding and Pearson (1994) have identified four components of successful programs:

- Large amounts of time for actual text reading
- Teacher-directed instruction in comprehension strategies
- Opportunities for peer and collaborative learning, and
- Occasions for students to talk to a teacher and one another about their responses to reading

Research has demonstrated a positive statistical relationship between the amount of time spent reading (and being read to) and reading comprehension, increases in vocabulary and concept knowledge (Nagy, et al. & Stallmen, cited in Fielding & Pearson, 1994). Although children typically spend a great deal of time on workbook assignments, Durkin (cited in Fielding & Pearson,

1994)) concluded that these exercises mostly tested students' understanding instead of teaching them how to comprehend. In contrast, instruction of strategies within the context of reading real texts has been shown to improve comprehension.

Explicit Instruction, a model described by Pearson and Dole (1987), involves four phases: (a) teacher modeling and explanation of a strategy, (b) guided practice during which teachers gradually give students more responsibility for task completion, (c) independent practice accompanied by feedback, and (d) application of the strategy in real reading situation. Clay and Cazden (1990) caution that "teaching should dwell on detail only long enough for the children to discover its existence and then encourage the use of it in isolation only when absolutely necessary" (p. 207).

Opportunities for children to engage in open ended discussions about literature and projects, where teachers guide the discussion and encourage multiple interpretations (instead of one right answer), enable children to learn from each other -- to be enriched and stimulated by "the power of each other's ideas" (Meier, 1995). Understanding is enhanced when children connect knowledge and past experience outside the classroom with text information. Literature response logs (Routman, 1994) and interactive journals (Thomas & Oldfather, 1995), in which children engage in a written dialogue with the teacher, enable children to explore the meaning and purpose of their literature curriculum. In addition, by connecting reading and writing, these two aspects of literacy can enhance each other, helping children to crack the speech to sound code. Ehri (1989) points out that reading directs writing toward more conventional forms, and writing enhances readers' interest in and grasp of the alphabetic structure of print.

All of these strategies have been shown to be highly effective for most children. But what about children who are not successfully learning to read and write, who seem to be falling further and further behind?

Children At-Risk For School Failure

The U.S. child poverty rate rose from 22.3 percent in 1992 to 22.7 percent in 1993, leaving 15.7 million children in poverty, the highest number in 30 years. Young children fared even worse. Between 1989 and 1992, the number of poor children under six grew from five to six million, and the poverty rate for these children reached 26 percent (Children's Defense Fund, 1995). More than a third --2.8 million -- of the nation's three and four-year-old children were from low-income families in 1990, a growth of 17 percent since 1980 (GAO, March 1995).

Research has demonstrated a strong correlation between proficiency in oral language and success at reading and writing. Problems with language are believed by some to be at the heart of the difficulties many low-income children encounter in school. In a survey conducted by the Carnegie Foundation, when teachers were asked what problem most restricted the school readiness, overwhelmingly they said, "deficiency in language" (Boyer, 1991).

It is important to note that most low-income parents provide nurturing environments for their children's development, despite the difficulties presented by living in poverty. In addition, although white middle-class Americans place a high value on the decontextualized, abstract written word, other ethnic groups and social classes may encourage the development of other intelligences, including aesthetic, musical and kinesthetic literacy. A study conducted in an elementary school in

Charlote, North Carolina (Stone, 1992), found that 64 percent of children were either tactile or kinesthetic learners, compared to only 21 percent who were primarily auditory learners and 20 percent who were visual learners.

In addition, many children from diverse cultural backgrounds, who may also be poor, have a great deal of knowledge and language competence that goes unrecognized by teachers who are predominantly white and middle-class. Thus, differences in verbal interaction and narrative styles may be interpreted as deficits (Delpit, 1995). Delpit points out that teacher education usually focuses on research that links failure and socioeconomic status, failure and cultural difference, and failure and single-parent households. "It is hard to believe that these children can possibly be successful after teachers have been so thoroughly exposed to so much negative indoctrination " (p. 172).

Teachers, then, can do much to ameliorate the difficulties that children from low-income families by having high exceptions for all children and by examining their own biases and beliefs regarding children living in poverty. If schools are to meet the needs of all children, they must build on the strengths, experience, and competencies that children bring to school, encouraging and providing opportunities for children to utilize their multiple intelligences.

Poverty and early language learning. While being poor does not inevitably lead to problems in school, poverty's adverse effects on children and families have been well documented. Poverty gives rise to many types of deprivation and increases the likelihood that numerous risk factors are present simultaneously: in parents, child, health care, housing, support systems, schools, child care, and neighborhoods. Due to the interaction of multiple risk factors, children from poor and minority families are disproportionately at-risk for school failure. Nationally, poor children are three times more likely to drop out of school and poor teen girls are five and a half times more likely to become teen mothers (Children First for Oregon, 1994). According to J. Lawrence Aber, the director of the National Center for Children in Poverty, "The increasing number of poor young children reflects a 20-year trend that is having devastating consequences on children today whether they are toddlers or teenagers."

A poor child is twice as likely to have low birth weight, three times as likely to have a teen parent, five or more times as likely to be abused, and twice, or in some high-risk communities, ten times as likely to die before their first birthday as are children in middle-class families (Children's Defense Fund, 1994). According to Halpern (1989), poverty harms children on three levels: (a) directly, through the physical consequences of material hardship: Inadequate housing, child care and medical care, poor nutrition, inferior schools, and dangerous environments; (b) indirectly, due to consequences of server and chronic stress; (c) through the dehumanization that defines the experience of poverty in America.

As discussed earlier, the optimal environment for stimulating language development is one of responsiveness to and acceptance of the child's communicative attempts. By responding to infant's babbles, coos, and smiles as if they are meaningful and including children in conversations long before they say their first words, parents help children to become confident and competent language learners. Dore (1985) suggests, "Perhaps the single most important aspect of conversational feedback for the initial acquisition of language is the adult's attribution of intentionality to infant vocalizations" (p. 345). An optimal environment is provided by caregivers who (a) accept and value behavior that children are able to do; (b) are highly responsive to children's interests; (c)

provide opportunities to exercise control over activities; (d) provide activities and interactions that are developmentally appropriate (Snow, Dubber & Blauw, 1982).

In contrast, a parenting style that relies on directives, direct teaching, and teaching by imitation has been associated with lower language functioning (Snow et al., 1982). In a longitudinal study, Tough (1982) found that it is precisely this parenting style which is prevalent among low-income families. The majority of the talk of middle-class mothers falls into the reflexive or associative category. For example, a middle-class mother might say, "Please get off the counter because I'm afraid you might fall." In contrast, the talk of disadvantaged mothers falls more frequently into the categorical category of speech, for example, "I'm telling you to get down now. Do it because I said so."

Parents who respond to their children's interests in various aspects of the world, helping them to observe, compare, reflect, predict, empathize, and reason are offering their children experience in the says in which parents think (Tough, 1982). But parents may actively discourage thinking and hinder the development of curiosity and interest in the world. Hart and Risley (1992) found that low SES children frequently experienced a language impoverished environment, receiving substantially less parenting per hour than children in middle-class families, and that these differences were strongly correlated with subsequent IQ measures of the children. In addition, a substantial proportion of parent utterances to children functioned to prohibit the children's activities. These investigators found a significant inverse relationship between the rate of prohibitions and children's IQ. They concluded that the strong relationship between even low prohibitions and unfavorable child outcomes suggests that prohibitions have a toxic effect on children's speech development.

It is not only the *quality* of the language-learning environment that is different for many poor children. The *amount* of verbal interaction between parents and their children varies greatly by social class. Farren and Ramey (1980) found that middle-class mothers increased their involvement with their infants from six to 20 months, whereas many low-income mothers decreased their involvement. In a longitudinal study conducted by Farren and Haskins (cited in Farren & Ramey, 1980), middle-class mothers played with their 3-year-olds twice as much as poor mothers.

Hart (1982) found that although the language of poor children displayed as great a variety and complexity as middle-class children, they used complex structures less frequently. In addition, poor children added new words and structures more slowly than advantaged children. The result was "a cumulative, ever-widening gap between the size of the lexicon in use by poverty versus advantaged children" (p. 209). Although high quality early intervention and preschool can do much to ameliorate the difficulties of low-income children, these programs are frequently either unavailable to many low-income families or of low quality.

Child care and early intervention. The critical nature of the first three years of life in the developmental outcome of children is now well understood. Early intervention research demonstrates the benefits of reaching children at younger ages, with strong emphasis on family involvement. Yet, despite a 26 percent increase in the poor infants and toddlers population during the 1980s, federally-funded programs serve only about one percent of all poor infants and toddlers (Government Accounting Office (GAO), 1994).

While interventions, which begin during the first three years and that continue through the child's primary years are optimal, the benefits of high quality preschool experiences have been well documented, particularly for poor children. However, children from low-income families are far less likely to be enrolled in preschool programs than middle- or upper-income children. A 1995 U.S. General Accounting Office document reported that in 1990, approximately 35 percent of poor three-and four-year-olds participated in preschool, compared with approximately 60 percent of those in the highest income group.

Tough (1982) points out that preschools and schools frequently operate in a way that does not encourage children to become involved in their own learning, relying instead on teacher directed activity, with children often in the position of passive responders. While schools frequently "teach language," both Tough (1982) and Hart (19820) propose that, "It is not that children from disadvantaged environments lack language, but that their expectations about using language do not support learning" (p.13).

A responsive environment, in which children's communicative attempts are encouraged and responded to in a way that encourages further dialogue can do much to facilitate language development. According to Marion Blank (1982), "there is no substitute for a dialogue with an adult who provides a good language model and who presses a child to stretch his or her cognitive functioning." Data suggests that 20 minutes three times per week of one-to-one interaction can lead to dramatic gains in children's language competence.

Yet, in many preschools and schools, due, in large part, to high child/teacher ratios, teachers frequently do not respond to children's questions and comments, or respond in ways that end the interaction. In addition, in some early intervention classrooms, teachers have been taught to concentrate on the form of language, rather than the substance -- on whether a child uses correct grammar, rather than how the child uses language to communicate or to reason. Halliday, McIntosh, and Stevens (1964) have labeled this traditional focus on form as being akin to teaching a starving man how to use a knife and fork (cited in McGuiness, 1982).

Even in high quality preschools, one-to-one adult-child interaction in the context of a meaningful conversation, is difficult to manage. In the Carolina Abecedarian Project, a demonstration day-care center, designed to prevent school failure of children raised in poverty, teachers were able to spend less that ten minutes per day per child (McGuiness, 1982).

Numerous studies have shown that our child care system is inadequate to meet the needs of our nation's children, particularly children from low-income families. Due in part to our society's strongly held beliefs that early care and socialization of children are not only the right but the responsibility of the family, our child care and preschool system have never been integrated into a comprehensive educational system. In the absence of government regulation and sanction, these systems have grown into a non-system of programs, with widely different philosophies, practices, and quality of care. Isolated from one another in a market economy, their relationship is typically characterized by competition, rather than collaboration (Caldwell, 1991; Kagan, 1991).

A study conducted by the University of Colorado at Denver, the University of California at Los Angeles, the University of North Carolina, and Yale University (1995) reported that across all levels of maternal education and child gender and ethnicity, children's cognitive and social development is positively related to the quality of their child care experience. Yet they found that child care at most

centers in the United States is poor to mediocre, with almost half of the infants and toddlers in settings having less than minimal quality. In addition, the level of quality at most U.S. child care centers, especially in infant/toddler rooms, does not meet children's needs for health, safety, warm relationships, and learning. Other studies have found:

- Almost 40 percent of children in out-of-home care are not protected by any state regulations, with many programs and family providers operating "underground" to avoid regulation. Only about one-third of early childhood teachers have any child-related training, and only about 24 percent have the Child Development Associate credential, as recommended by the National Association for the Education of Young Children (Boyer, 1991).
- The average hourly salary for early childhood educators is less than $6.00 an hour, with few benefits. The annual salary of about $11,000 has declined 25 percent since the mid-1970s. In Oregon, 67 percent had no health benefits, 83 percent had no dental coverage, 44 percent had no paid sick leave, and 41 percent had no paid vacation. A 1991 survey showed that child care workers in Oregon earn less than half of what comparably educated individuals in other fields earn (Children First for Oregon, 1994).
- In 1990, 11 states spent at least 24 times more on corrections and prisons than they spent on the care and development of young children. Nevada and Idaho spent more than 100 times more on corrections than on services for early childhood development and Virginia spent almost 75 times more (Adams & Sandfort, 1992).

Ready to learn. Rising poverty, combined with an inadequate child care system and insufficient comprehensive early intervention and family support programs, has had a profound effect on our nation's young children. According to a 1991 survey of kindergarten teachers by the Carnegie Foundation, more than a third of the 3.5 million children who enter the nation's public schools each year are not ready to participate successfully (Boyer, 1991). Greene (1992) points out, "That's more than a million kids predestined for failure *every year*" (p. 4). "What we find so shocking is that such a high number of kindergarten students come to school educationally, socially and emotionally not well prepared," writes Boyer.

Although many children will gain the skills they need to succeed in kindergarten and beyond, many will not. As children experience an ever-widening gap between their competencies and school expectations, they may experience a pervasive sense of failure that may eventually lead to dropping out of school. Schools can identify children at risk for reading failure and design effective programs that enable children not only to accelerate their learning, but also maintain their gains throughout their school years. However, schools may instead provide an environment that exacerbates the difficulties, creating a "double whammy" effect that seriously compromises children's academic success. (Stanovich, 1986).

The rich get richer. As discussed earlier, research has demonstrated a strong correlation between the amount of time spent reading and reading comprehension, vocabulary growth, and concept knowledge (Anderson, et al., 1988).

> For unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken away even that which he hath (Matthew, 25:29).

Yet studies conducted in the 1970s and 80s revealed that children spent more time in workbook assignments than in actually reading texts. Estimates of how much time children spent reading ranged from seven to 15 minutes per day from the primary to the intermediate grades (Anderson, et. al., 1985).

Primarily because of the belief that children must be taught reading readiness skills before they engage in reading and writing activities, the skill/reading time ratio is typically the highest for children of the lowest reading ability. Delpit (1995) points out:

> Children may spend so much time matching circles and triangles that no one ever introduces them to actually learning how to read. Should anyone doubt it, I can guarantee that no amount of matching circles and triangles ever taught anyone how to read. Worse, these activities take time away from real kinds of involvement in literacy such as listening to and seeing words in real books (p. 174).

Thus, focusing on accumulating isolated skills, for later assembly into the whole, may leave little time for the real thing, contributing to what Walberg (cited in Stanovich, 1986) dubbed "Matthew effects," that is, a situation in which the rich get richer and the poor poorer. There is substantial agreement among researchers that reading is a significant contributor to the growth of vocabulary, concept knowledge, and comprehension skills. Stanovich (1986) notes, "It appears that the bulk of vocabulary growth does not occur via direct instruction " (p. 379). Children who are reading well and who have good vocabularies will read more, learn more word meanings, comprehend more, develop fluency, and hence read even better (Stanovich, 1986).

Allington (cited in Stanovich, 1986) found that in his first grade sample, the total number of words read during a week of school reading-group sessions ranged form a low of 16 for one of the children in the less skilled group to a high of 1,933 for one of the children in the skilled reading group. Children who read slowly, due to inadequate vocabularies and deficient decoding skills, read less, and as a result, have slower development of vocabulary, comprehension skills, and concept knowledge. Stanovich explains: "Reading for meaning is hindered, unrewarding reading experiences multiply, and practice is avoided or merely tolerated without real cognitive development. This downward spiral continues -and has further consequences " (p. 364).

How can these snowballing consequences of reading difficulties -- limited vocabulary growth and concept knowledge, reduced motivation to read, inhibited performance on many academic tasks, loss of self-esteem, and eventually school failure and drop out -- be prevented? For most children, ample opportunities to read and write authentic texts, with explicit instruction in decoding, spelling, and punctuation within the context of meaningful communicative endeavors, is sufficient to enable them to become proficient readers and writers. Children who have had little experience with story books, who may have oral language deficits (in comparison with their more advantaged peers), who exhibit little phonological awareness (awareness of the speech sounds or phonemes to which letters correspond), and who may not see reading and writing as relevant to their daily lives, may need something extra.

Ensuring success at school: What works? What Doesn't? Although most educators and policy makers profess to believe that all children can learn, our educational policies often belie this belief.

> For want of a nail, the shoe was lost; for want of a shoe, the horse was lost; for want of a horse, the rider was lost (Poor Richard's Almanac, 1858).

Approximately 12 percent of all school-aged children are placed in special education programs, many on the basis of reading failure, and then remain in special education for many years, often for their entire school careers (Slavin, et. al., 1993). Slavin and his colleagues conclude that while success in the early grades does not guarantee success throughout the school years and beyond, "failure in the early grades does virtually guarantee failure in later schooling" (p. 11).

One of the most popular strategies used to improve performance is retention. Each year approximately 2.4 million students per year are retained, at a cost of nearly $10 billion. In some urban districts, as many as one fourth to one-third of U.S. kindergarten children and one-fifth of first graders are retained. Not only is this a costly strategy, but research strongly suggests that it is an ineffective, and even a harmful one (Nason, 1990; Shepard & Smith, 1990). Holmes (cited in Shepard & Smith, 1990) reported that in a meta-analysis of 63 controlled studies, 54 studies showed overall negative effects on achievement and emotional well-being.

Children in Yamamoto's (1980, cited in Shepard & Smith, 1990) study of childhood stressors rated the prospect of repeating a grade as more stressful than "wetting in class" or being caught stealing. The only two life events they felt would be more stressful than being retained were going blind or losing a parent. Yet retained students interviewed by Byrnes (1989, cited in Shepard and Smith, 1990) indicated that they may already be plagued by feelings of failure at being unable to meet school expectations. Like the high achieving students, they viewed retention as a necessary punishment for being bad in class or failing to learn.

Longitudinal studies find that disadvantaged third graders who have failed one or more grades and are reading below grade level are extremely unlikely to complete high school (Lloyd, 1978, cited in Slavin, et al., 1993). Thus, failure to learn to read may eventually lead to school failure and drop out. In turn, in today's "economy with limited seating," (Girioux, 1983), students may end up in dead-end jobs, unemployed, or worse, join the ranks of young people in our nation's burgeoning prisons. Thus, as in Ben Franklin's cautionary tale, a little neglect may have disastrous consequences, for our nation as a whole, and for the individuals whose lives are stunted by failure to learn such a basic skill as reading.

Yet, research is clear that we know how to ensure that virtually all children acquire the skills, knowledge, and attitudes necessary for success at school and beyond. After a major, federal funded review of the effects of programs intended to prevent school failure, Slavin and his colleagues (1993) concluded unequivocally: *"Early school failure is fundamentally preventable* (p. 17).

Programs that work. Research has shown that programs that identify at-risk children in the first grade and begin intervention before a history of failure has set in can provide children with the experiences they need to be successful at school. Effects of programs for students who begin after first grade are much less significant (Salvin, et al., 1993; Speigel, 1995). In their review of intervention programs, Slavin and his colleagues (1993) identified a strategy that stands out from all others in effectiveness: *one-to-one tutoring*, beginning n the first grade, for children identified with reading problems. Although all forms of individualized tutoring were more effective than any other reading strategy, tutoring by certified teachers was the most beneficial.

Reading Recovery, Success for All and *Prevention of Learning Disabilities* are three programs that provide one-to-one tutoring for 20 to 30 minutes a day for during the first grade by certified teachers, as part of their intervention strategies. All three programs have been found to produce gains in reading that averaged 75 percent or more at the end of first grade and lasted into the third grade (SREB, 1994).

Yet it is clear that, just as preschool provides no silver bullet or inoculation that assures success throughout the school years, intensive tutoring for a few months in the first grade will not be enough for all children. For all at-risk children, high quality instruction in the elementary grades is also necessary. For some high risk children, family support services and extended tutoring might be necessary (Slavin et al., 1993). Slavin and colleagues propose that we need to provide at-risk children with the services they need at a particular stage of development. They observe:

> If a cook puts a high flame under a stew, brings it to a boil, and then turns it off, the stew will not cook. If the cook puts a stew on simmer without first bringing it to a boil, the stew will not cook. Only by bringing the stew to a boil and then simmering will the stew cook. By the same token, intensive intervention for at-risk children with no follow-up in improved instruction is unlikely to produce lasting gains, and mild interventions over extended periods may also fail to bring low achievers into the educational mainstream. Yet intensive early intervention followed by long-term (inexpensive) improvements in instruction and other services can produce substantial and lasting gains (p. 16).

Is a commitment to educating all children a costly endeavor? Yes. Are the alternatives even more costly? Of course, the answer is "yes." Comprehensive preschool and early intervention programs, at a cost of approximately $4,000 to $6,000 per child, per year, have produced sustainable gains in the areas of social competence, with fewer grade repetitions and referrals to special education, and more positive attitudes toward school. Schweinhart and Weikart's (1993) recently published their findings through age 27 on the High/Scope Perry Preschool Project. They reported that:

> High quality, active-learning programs for young children living in poverty return $7.16 for every dollar invested, cut in half participants' crime rate through age 27, significantly increase participants' earnings and property wealth as adults, and significantly increase participants' commitment to marriage (p. 54).

Although high quality classroom instruction, essential for at-risk children to sustain gains made with one-to-one tutoring, is relatively inexpensive and benefits all children, extended tutoring and family support services for children that need these additional services, can be costly for schools, as much as $800 per child. Yet, reducing retentions and special education referrals creates major savings in the long run. In addition, compared to the costs of a life time of public assistance at $2,550 a year or $25,000 per person per year in prison, educational interventions are clearly a bargain.

Summary

Research in how oral language develops has greatly influenced our understanding of how children learn written language. Because oral language is regarded as the cornerstone of reading development, proponents of whole language and emergent literacy perspectives view literacy as

beginning in caregiver/infant interactions. Oral and written language are seen as interrelated and developing simultaneously, each reinforcing and transforming the other. In this view, the underlying process of learning written and oral language is the same; like oral language, written language is best learned through actual use in a social context.

Teachers who utilize a whole language approach in teaching young children strive to create a classroom environment similar to the home environment that has been shown to be optimal for natural literacy development. In a whole language classroom, children are given multiple opportunities to engage in reading and writing and to participate in open-ended discussions and written dialogues with the teacher.

Serving as a guide and resource, rather than a dispenser of information, teachers use questions and comments to encourage exploration of literature in a context of joint inquiry. Children learn decoding skills, punctuation, and spelling while reading and writing authentic texts and are encouraged to link their knowledge and past experience with text information. If necessary, one-on-one tutoring, combined with other support services, is provided to ensure every child's successful early literacy development.

Other Voices, Other Classrooms

In our culture, high value is placed on verbal/linguistic and logical/mathematical intelligences, with particular emphasis on learning through the decontextualized word found in print. It is clear that learning to read is fundamental to success at school and beyond. Failure to learn to read is strongly correlated with school dropout, often with devastating consequences for individual children and for society. Because of the vital importance of literacy, opportunities for hands-on learning usually take a back seat to literacy activities, even in some whole language classrooms. Gardner and Hatch (1989) point out that the ability to fashion a product -- to write a symphony, execute a painting, stage a play, build up and manage an organization, carry out an experiment -- are typically not included in our definition of intelligence.

Delpit (1995) recounts the story of an Alaska Native teacher (D.) when she was a bilingual aide in an Anglo teacher's classroom.

> The teacher wanted to bring the children's culture into the class. She asked D. to write the directions for making an animal trap on the blackboard so the children could make traps in class during the activity period. D. told me she had a hard time writing up the directions, but struggled through it. The kids, however, were the ones who really had a hard time. They found the directions impossible to follow. Finally, in utter frustration, D. went home and got a trap. She took it apart and let the children watch as she put it back together. Everyone made his or her own trap in no time (p. 103).

An integrated curriculum offers opportunities for children to cultivate what Malaguzzi (1993) called "the hundred languages of children." Howard Gardner of Harvard University identified seven sources of intelligence. In addition to logical-mathematical and linguistic, he includes: spatial, musical, kinesthetic, interpersonal, and intra-personal. There is increasing understanding on

the part of educators and researchers of the importance of all of these intelligences for a child's development and academic success.

INTEGRATED CURRICULUM:
THEMES, PROJECTS, WEBS, AND INQUIRY

> If we are to achieve a richer culture, rich in contrasting values, we must recognize the whole gamut of human possibilities, and so weave a less arbitrary social fabric, one in which each diverse human gift will find a fitting place (Margaret Mead).

Eleanor Duckworth has said that the development of intelligence is "a matter of having wonderful ideas and feeling confident enough to try them out" (1972, p. 227). Proponents of an integrated curriculum strive to create such a classroom environment by encouraging active, engaged learning, through open-ended discussion and multiple modes of inquiry. Based on brain research, which demonstrates that the mind is designed to perceive patterns and relationships and works best when learning takes place in the context of meaningful activities, integrated curricular approaches encourage children to bring all of their intelligences and experience to the learning activity.

In order to provide opportunities for children to engage in the in-depth study of a particular topic over an extended period of time, children work on projects, individually and in groups, posing questions, making decisions and choices, and pursuing interests (Katz, 1994). Teachers act as coach, facilitator, and partner in inquiry, suggesting and providing resources and strategies. Subjects, rather than being separated into discrete areas, each with its own sequence of skills, are integrated. It is important to note that an integrated curriculum is not synonymous with fuzzy-mindedness. Bredekamp and Rosegrant (1995) state, "We believe that integrated curriculum cannot achieve intellectual integrity unless it is thoroughly grounded in the knowledge bases of the various disciplines, which have evolved over centuries" (p. 2).

Wills (1995) contrasts an integrated, inquiry driven curriculum with a traditional prescriptive approach to teaching, in which learning is viewed from a linear perspective, "much like a train racing along a railroad track" (Wills, 1995).

> The course is predetermined and no detours are allowed. The only variable is the speed with which the journey is made. An unusually quick trip denotes a child whose learning ability is above grade level; an on-time arrival denotes a child at grade-level. All educators are familiar with the many labels for those who arrive late. Of course, many of those late arrivals never complete the trip, eventually choosing to jump from the train (p. 262).

The project approach (Katz & Chard, 1989) and the inquiry model (Wills, 1995), like more traditional thematic units, provide opportunities for children to learn about a topic. However, unlike thematic units, which usually consist of pre-planned lessons, teachers using a project or inquiry approach plan for possibilities. Rather than standardized, predetermined outcomes, the goal of an integrated curriculum is what Eisner (1991) refers to as "productive unpredictability -- creative thinking" (p. 103). Not only reading and writing, but play, visual art, music, dance, drama, observation, and investigation provide multiple ways for children to "get to the heart of a subject." As Hawkins observes, "You don't want to cover a subject; you want to uncover it" (cited in Duckworth, 1972).

Curriculum, then, becomes a negotiation, a balance achieved among three sources of input: children's interests, teachers' interests, and the required unit (Wills, 1995). Learning is characterized by a joint search for understanding, with teachers and children becoming partners in inquiry. Wills explains:

> The key to realizing the full potential of this process is the teacher's ability to facilitate sharing in a way that is naturally respectful of the children's ideas. This single element may be the most elusive and difficult aspect of an inquiry (or indeed any) curriculum. It requires teachers to be listeners and learners in a profession that has trained them to be talkers and authority figures (p. 265).

To enhance children's ability to make sense of their world, projects should be relevant to their lives outside the classroom, drawing on children's knowledge, interests, and experience. Once a topic has been selected, teachers and children brainstorm what they think they know about the topic and what they want to know. Making a "web" or a concept map, a mental representation of concepts and relationships, helps extend the theme and provides an overview of resources and activities that can aid in the investigation.

Topics are explored from multiple perspectives, using a variety of printed information, manipulable materials, and resources from the community -- people, animals, and places -- that contribute to children's understanding of a theme (Pappas, Keifer & Levstik, 1990). Opportunities for children to express themselves in multiple languages --visual art, music, drama, dance -- are particularly important for children from linguistically and culturally diverse backgrounds. Projects that free children form the need to express themselves only in words help to build concepts and bridge language differences (Abramson, Robinson & Ankenman, 1995). Choices of projects for young children are limited only by time, resources, and the collective imagination of the classroom. Global themes, such as change, freedom, relationships, patterns, and communication, are especially well suited to integration (Nielsen, 1989).

Projects typically culminate in some kind of product, such as published book (either individually or collaboratively written and illustrated) or a play. Classrooms often are transformed into the topic under study. For example, a class studying an ecosystem may "become" an ecosystem, complete with flora and fauna, fashioned from various materials. In one class observed by the author, the children created a city; children built their own replicas of shops or homes of their choice, then "lived" in them for several weeks. One student brought fresh flowers daily for her "flower shop" and decorated it with homemade curtains and murals. A theme about Egypt may lead to the classroom turning into a museum, with students becoming tour guides for other classes (Moll & Whitmore, 1993).

Although projects can provide opportunities for children to investigate a topic in-depth, proponents of project and inquiry models do not suggest that this kind of work should dictate curriculum content. "The unit of study is a path toward understanding something better, not a wall around the curriculum (Rosegrant & Bredekamp, 1992).

Learning centers. Learning centers provide opportunities for children to learn through concrete experiences with materials and other children. A typical preschool and kindergarten classroom may be divided into a number of such centers, including housekeeping or dramatic play; a block corner; sand and water; art; reading; writing; and a science center. A thematic curriculum can help provide structure for children's independent and collaborative explorations and activities. Although

learning centers are usually not used in older elementary classrooms, older children (as well as adults) may benefit from hands-on learning opportunities which engage all the senses.

In *Multiple Intelligences in the Classroom* (1989), Campbell describes his third grade classroom, which is divided into seven learning centers, each dedicated to one of the seven intelligences described by Gardner. For two-thirds of the day, children rotate through the centers, exploring a topic such as outer space and using all seven intelligences. He reports that, over the year, not only did children's academic achievement improve, but discipline problems were reduced and children developed self-direction and cooperative learning skills.

These findings are backed by brain research which has shown that learning is more meaningful and more likely to be retained when children connect, not only aurally, but emotionally and physically, with the material (Hancock, 1996). Brown, Collins, and Duguid (1989) argue that by separating knowing and doing, "education defeats its own goal of providing useable, robust knowledge" (p. 32). They maintain that learning is "fundamentally situated" in the activities and situations in which it takes place.

Challenges. Although solidly grounded in cognitive psychology and bolstered by positive teacher reports, implementing an integrated curriculum can be cumbersome and time consuming, as well as exciting and unpredictable. In-depth study of a subject through discussion, open-ended questioning, and multiple modes of inquiry requires considerable time for both teachers and children to read, reflect, dialogue, explore, and experiment. In a recent study by the author, some teachers expressed doubts as to the efficacy of these practices for efficiently promoting skill acquisition. Despite using an educational approach that focuses on teaching skills within the context of a developmentally appropriate classroom, worries about "getting children ready for next year" were expressed by a number of teachers (Novick, 1996).

Wide-spread use of norm-referenced tests adds to the concerns. The tension between "coverage and making sense of things" (Meier, 1995) and between "getting children ready for next year" and encouraging multiple intelligences is exacerbated by the continued use of standardized tests which tend to measure a restricted view of intelligence and performance. The use of authentic assessments may do much to reduce the mismatch between curriculum and assessment. (This topic will be discussed later in the paper).

However, even with kinder and gentler assessments, the tension between encouraging skill acquisition and in-depth understanding is one that all teachers inevitably confront, as they move from a traditional, didactic teaching style to a more child centered one. Teachers must find their own balance between implementing a prepackaged curriculum, with step-by-step skill building exercises and a more meaningful curriculum, which may build skills less systematically. To do so requires time for observation, reading, reflection, dialogue with colleagues, and support at the district, state, and federal levels.

"The quest," John Dewey, lamented, "is for certainty." If schools are to help children learn to think critically and imaginatively and to appreciate multiple viewpoints, a certain amount of uncertainty and ambiguity may not only be inevitable, but necessary for good teaching. While the role of educators has typically been one of transmitting knowledge, skills, and social and moral rules of the culture (Kohlberg & Meyer, 1972), many of our best thinkers, writers, artists, and inventors have

produced their creations, not by rote memorization of information and rules, but through play -- "that special form of violating fixity" (Bruner, 1983).

In Defense Of Play

> The creation of new ideas does not come from minds trained to follow doggedly what is already known. Creation comes from tinkering and playing around, from which new forms emerge. Composers play with sounds in their heads to make music. Visual artists play with images, form and color to create art. Architects play with design and form. Poets and novelists play with words, literally and figuratively, in their literary creations (Wasserman, 1992).

The role of play in learning is one of the most talked about and least undertook aspects of DAP. Although early childhood educators are often quoted as saying, "Play is the work of the child," in the enlarged DAP guidelines, Bredekamp and Rosegrant (1992) took pains to dispel the myth that DAP classrooms are child indulgent places, where children are "just left to play," or, even worse, chaotic environments where children are in control of the classrooms. Rather, for play to promote learning, "teachers must know why, when, and how they can help play become an enriching, meaningful learning experience" (p. 5). There is widespread agreement among early childhood educators that children's play benefits from support from adults and peers to reach new levels of competence (Berk & Winsler, 1995).

What is Play?

> Work consists of whatever a body is obliged to do . . . Play consists of whatever a body is not obliged to do (Twain, 1936).

The primate species is characterized by a prolonged period of protection by caregivers, a time that is typically dominated by play. An enormous amount of time is spent observing adults and incorporating what is learned into play experiences. Although play is difficult to define, most educators agree on a number of characteristics of play: (a) Play takes place in an atmosphere of emotional reassurance, in which opportunities are provided for testing limits with impunity; and (b) play is intrinsically rewarding and enjoyable, even when it requires hard "work" (referred to as "serious play" by Kohler, 1926, cited in Bruner, 1972).

First and second grade children in a study by Wing (1995) distinguished play from work on a number of elements, many of which involved the voluntary or obligatory nature of the activity, indicating considerable agreement with Huck Finn's pronouncement, cited above. For example, children typically characterized play as something you *get to* do, while work was something you *have to* do:

Cindy: When there are new materials, you get to play with them and do whatever you want. And just get used to it. Like when the sand was here, we could do whatever we wanted with it.

Interviewer: Is it still playing?

Cindy: Um, no. Now, it's estimating. It's like playing, only you have to do what the teacher says (p. 228).

Children also considered freedom of physical movement in the room, smiling and manipulating toys as play-like. Their answers indicated that for some children the act of sitting down for any length of time may be very hard work:

Cameron: When you're playing like sometimes you are sweating and when you're doing math it's like working...When you're playing you like run around, and when it's -- when you work, you just walk around.

Mary: If you're playing, then you're not really doing anything sitting down. And if you're working, you have to sit down and do it. (p. 236).

Again, research on the brain helps to explain why it is important for children, not only to have adequate daily exercise, but to be more physically active in the classroom. Hancock (1996) explains: "Physical movement juices up the brain, feeding it nutrients in the form of glucose and increasing nerve connections -- all of which make is easier for kids of all ages to learn" (p. 58). Generally, the younger the child the more important it is for active engagement with materials, peers, and teachers, in order for learning to take place. When children are able to talk while they work, sharing ideas, excitement, and laughter and when their hands are active, their minds are engaged. A teacher in a third-grade bilingual classroom expresses this viewpoint when she tell her children, "Talking is probably the most important thing we do in here because you learn the most when you can talk while you work" (Moll & Whitmore, 1993, p. 29). A DAP classroom, then, is often filled with the pleasant din that accompanies active learning.

Playing with words. Although Piaget regarded private speech (self-talk that does not seem to be addressed to another person) as a symptom of cognitive immaturity, Vygotsky viewed the private speech of young children as a problem-solving tool that guides behavior, helps children learn language, make sense of their world, express their emotions, and simply play with words (Berk & Winsler, 1995). This view of private speech as playing an important part in development is increasingly accepted by educators and development psychologists; private speech has been studied by a number of researchers. In particular, Weir's *Language in the Crib* (1970) and Nelson's *Narratives from the Crib* (1989) provide delightful examples of the extended solitary monologues that some young children engage in before going to sleep. In the following example, Anthony, Weir's two-year-old son explores the meaning of the words "big" and "little" and practices his counting skills (Cited in Berk & Winsler, 1995) (p. 118):

hi big Bob
that's Bob
that's Bob
big Bob
little Bob
big and little
little Bobby
little Nancy
big Nancy
big Bob and Nancy and Bobby
and Bob
and two, three Bobbys
three Bobbys
four Bobbys
six
tell the night, Bobby
big Bob
big Bob not home

In addition to the practice that such speech provides for learning word meanings, grammatical structures, and pronunciations in a risk free environment, these solitary stories help children to make sense of the events in their daily lives. Stern (1989) argues that around the end of the second year, a "narrative sense of self" emerges. These narratives help to "get ordinary life under control," by anticipating the day's events, sorting out the week's routines, and recounting past events, illustrated by the following musings by Emily, age 28 months:

> Yellow buses. 1 2 3 4 days we have yellow buses, but not 5 4 5 4 5 have blue buses. I like . . . these days we're going to have the yellow buses, and the . . . right now, it's Thursday, and Friday, and S-, S- . . . and Sunday, so it's, um . . . a yellow bus . . . day. And on Friday and Sunday, it's blue day, so I going on yellow and a blue. One day going on a yellow bus and one day going on a blue bus . . . On blue days, we just get blue. I can see yellow and I can see . . . black. (p. 67)

Anthony's and Emily's soliloquies demonstrate that the habit of playing with words can not only help to sort one's thoughts about the world, but also lead to creative use of language, using rhythm, alliteration, rhyme, and imagery. Wasserman (1995) points out:

> Although we may think of William Shakespeare's work as sacrosanct -- the epitome of polished language usage -- it helps to remember that he invented at least 1,700 words, which became part of our common language usage only after he introduced them. From all of this play, this messing around, serious and new creative forms are brought to life (p. 134).

As educators, we can help to foster, not only the functional use of language, but also its esthetic use, through encouraging oral and written play with words.

Research on play. Although teachers have been trained to pay close attention to the amount of children's "time on task," studies with primates indicate that it is the very exaggeration and lack of economy of play that encourages extension of the limits (Bruner (1972). Bruner concludes that primate play produces the flexibility that makes tool using possible. Studies with primates have found that tool use appears first in play, then in problem-solving.

It is probably the "push to variation" (rather than fixation by positive reinforcement) that gives chimpanzee manipulation such widespread efficacy -- such opportunism as dipping sticks into beehives for honey, using sticks for clubbing lizards and rodents, an using branches for striking at or throwing at big felines (p. 695).

A number of laboratory studies indicate the necessity of initial play with materials in order for them to be converted to instrumental ends. Animals that successfully solved problems using tools did so after an extended period of play with the tools. Few succeeded before play (Bruner, 1972). The intrinsic motivation of play, the lack of concern with positive reinforcement or reward, is illustrated by this example:

> Hebb recounted how a chimpanzee he tested solved problems for banana slice incentive. On one particular day, she arranged the banana slice rewards in a row instead of eating them! Apparently she had solved the problems for their own sake.

> "I was out of bananas, but I offered her another problem . . . she solved the problem: opened the correct box and set the box again . . . I ended up with thirty slices of banana" (Bruner, 1972).

Studies by Bruner (1985) demonstrated that, like chimps' play, children's play has positive effects on problem solving and concept development, effects that are substantially better than through direct instruction:

> There is evidence that by getting children to play with materials that they must later use in a problem solving task, one gets superior performance from them in comparison with those children who spend time familiarizing themselves with the materials in other ways. Players generate more hypotheses and they reject wrong ones more quickly. Players seem to become frustrated less and fixated less. They are more interested in finding out and learning from their explorations than they are in obtaining rewards (p. 603).

Research on children's play has provided abundant evidence that play promotes cognitive, language, and social/emotional development. Socio-dramatic play, in particular, has frequently been studied. Preschoolers who spend more time at socio-dramatic play are advanced in general development, show an enhanced ability to understand the feelings of others, and are seen as more socially competent by their teachers (Berk & Winsler, 1995). Pretend play offers an arena in which all facets of conversational dialogue can be extended, to resolve disputes, to enter into a group engaged in make believe, to ensure continued collaboration, and to exchange points of view (Berk & Winsler, 1995).

Memory is also enhanced through fantasy play. Newman (1990) reported that opportunities for play with objects enhances children's ability to remember names of objects and Silvern (1986) found that recall of an unfamiliar story is promoted by opportunities to act out the story.

Play, then, can help school become a place where learning makes sense. Children use all their intelligences to solve problems, learn new concepts, collaborate with others, and make connections between what they know and what they want to know. Play offers opportunities for children to create something new, to develop self direction, to take risks with impunity, and, perhaps, most importantly, develop habits of play that can last a lifetime (Wasserman, 1995). It is no wonder that Vygotsky regarded play as a leading factor in development, providing a stage between the purely situational constraints of early childhood and the abstract thought of adults: "In play, the child always behaves beyond his average age, above his daily behavior; in play it is as though the were a head taller than himself" (1978, p. 102).

Singer and Singer (cited in Bert & Winsler, 1995) argue that for optimal development of imagination, significant people in the child's life must establish a climate for make-believe, encouraging and accepting the child's imaginings with enthusiasm and respect. Following the child's lead and elaborating on the child's contribution helps pretending to become a joint activity, with the child gradually taking over more responsibility for creating and implementing the fantasy theme (Bert & Winsler, 1995). Telling stories, initiating joint pretend, and providing materials (such as puppets and costumes) that inspire make-believe can help a child develop what Singer and Singer (1995) refer to as "a sense of wonder."

Because our educational system typically uses a narrow conception of cognition, cultivating a sense of wonder has never been high on a list of academic goals. Rather, schools often have a goal of achieving an ideal of pure reason, unencumbered by emotions or past experience, reflected in Descartes' famous dictum: "I think therefore I am." The legacy of the Cartesian tradition, with its roots in the Socratic-Platonic view of knowledge, is still the dominant way of thinking in most areas of education. Its premises include: the separation of mind and body, thought from feeling, the work of the head from the work of the hand, and a belief in pure thought and perception -- uninfluenced by culture, language, and the senses (Bowers & Flinders, 1990; Eisner, 1994).

Yet developmental psychology and brain research have demonstrated the inter-relatedness of thought and feeling, the importance of using all the senses, and the necessity, particularly for young children, of active, hands-on learning. It is clear that cognition without feeling is no more attainable or desirable than cognition unbiased by tradition and culture. Although "extra-curricular activities," such as music and gym are often the first to be cut, educators would do well to develop an appreciation of the vital role of play in a child's healthy development and provide opportunities for children to cultivate their imaginations and engage their emotions, through drama, athletics, art, music, and dance.

In *Possible Lives*, Mike Rose (1995) reports an interview with a highly successful science teacher who challenges the myth of the passionless scientist:

> I think there has been a great misunderstanding about science . . . This image of the scientist being cold and calculating -- the metaphor of the computer -- that's just wrong. If you study the history of science, read the biographies of great scientists, you'll find tremendous passion and imagination. Many insights come in dreams, not in formulas, in things seemingly unrelated to science, all sorts of things triggering ideas. (p. 216)

Of course, not everyone will be a famous scientist, artist, or inventor. Yet there is convincing evidence that play helps children develop the social, emotional, and cognitive attributes that are crucial not only for success in school and beyond, but for individual fulfillment.

MATHEMATICS:
BASKET OF FACTS OR SEARCH FOR MEANING?

For decades, the behaviorist view of learning has encouraged teachers to regard mathematics as "one of the drill subjects' (Skinner, cited in Krogh, 1994). Recently, however, our understanding of how children learn mathematics has been influenced by the writings of Piaget, who advocated a constructivist view of learning, in which children actively construct their knowledge through interactions with the physical and social environment. In this approach, mathematics is regarded as a particular kind of knowledge, requiring abstract reasoning and reflection on relationships and patterns in the world around us. Based on standards set forth by the Commission of Standards for School Mathematics (1989), Kamii (1989) has identified four broad goals for arithmetic. They are that children:

1. Do their own thinking and develop confidence in their ability to figure things out.
2. Become able to solve problems in many different ways.
3. Develop number sense.
4. Exchange points of view thoughtfully with others.

A Constructivist Approach To Mathematics

From his many years of studying children, Piaget identified three kinds of knowledge: physical knowledge, logical-mathematical knowledge, and social knowledge (Kamii, 1985). Physical, or empirical knowledge, refers to knowledge of objects in external reality. The color and weight of an object are examples of physical properties that are in objects in external reality and can be known by observation.

The second type of knowledge is logical-mathematical and concerns relationships created by the child. Unlike empirical abstraction, in which the child focuses on a certain property of an object and ignores the others. logic-mathematical thinking requires reflective abstraction, or in Kamii's words (1985) constructive abstraction. For instance, when a child is presented with a red bead and a blue one, and says they are different, the difference is a relationships created by the individual. The source of this knowledge is internal, existing only in the minds of those who can create it between the objects (Kamii, 1985).

Social knowledge refers to conventions worked out by people (Kamii, 1991). For example, although the spoken words one, two, three belong to social knowledge, the numerical concepts underlying these conventions belong to logico-mathematical knowledge. More than 300 years ago, Comenius pointed out that young children might be taught to count but that it takes longer for them to understand what the numbers mean (Krough, 1994). Young children may believe that numbers are actually names for the objects they count, like Jane, Mary, and David. Developing logic-mathematical knowledge requires both maturation and experience.

A critical issue in the constructivist approach advocated by proponents of DAP is to present problems to children that are meaningful and relevant to the child's experience and development. For young children who have not developed abstract reasoning skills, meaningful concepts and solutions are those that are developed in response to real-life problems. Manipulation of objects is essential because young children think better when they physically act on the objects. Kamii (1985) points out it is not the manipulation itself that is important; "what is important is that mental action is encouraged when children act on objects themselves."

For the preschool and kindergarten child, activities such as counting the number of doors in a school and measuring how many children can sit in an activity area, using their own bodies as the standard, capture the child's interest and facilitate understanding. Building with blocks can help a child understand spatial relations. Hancock (1996) notes, "Angles and dimensions are better understood if children chuck their work sheets and build a complex model to scale" (p. 58). In addition to hands-on manipulation, it is important to allow ample time and opportunity for children to invent their own procedures for solving computational and story problems.

The Japanese approach, which has proved highly successful, is to focus on one or two problems during a single learning session (Krogh, 1994). Children play mathematical games, thinking of as many ways as possible to solve a problem and share solutions with each other. Instead of saying, "That's right" or "That's not right," teachers are encouraged to ask the class such questions as, "Does everybody agree?" and "Does that make sense?" (Kamii, 1989).

An historical perspective. Krogh (1994) notes that, historically, mathematical systems have developed in response to real-life problems. She writes:

> History's early focus on applied mathematics is a viewpoint we would do well to remember today. A few hundred years ago a university student was considered educated if he could use his fingers to do simple operations of arithmetic (Baroody, 1987). Now we expect the same of an elementary school child. The amount of mathematical knowledge expected of children today has become so extensive and complex that it is easy to forget that solving real-life problems is the ultimate goal of mathematical thinking (P. 423).

Piaget reasoned that if today's knowledge was created through centuries of constructivism, there might be parallels between the way children build knowledge today and the way humanity built it in the past (Kamii, 1989). The human physiological fact of ten fingers and ten toes led in all mathematical cultures to some sort of decimal system (Krogh, 1994). Until around 1600, computations were performed with objects such as pebbles and counters and with abacuses. Whereas a variety of boards, tablets, and abacuses have been invented, the basic principle of representing the base-ten system remained the same for centuries (Kamii, 1989).
Kamii (1989) points out that when our ancestors used the abacus, they used writing only to record the results of the calculations carried out with the abacus. She explains:

> Compared to writing, physical actions on pebbles and beads are much more directly related to mental actions (thinking). In fact, the mental actions are directly represented by these physical actions. For example, pushing two beads up to add two is a direct representation of the mental action, but writing "= 2" is not. The use of an abacus is also closely related to mental actions in another way. The person

> using an abacus has to know whether the place value is ones, tens, hundreds, and so on (P. 25).

Using an abacus to perform addition and subtraction requires the student to begin with the highest-order unit and proceed from left to right, towards the ones. In a number of studies with elementary school children, Kamii found that children who are encouraged to invent their own proceedings also work form left to right. Madell (1985) stated that if children are allowed to do their own thinking, they universally invent left-to-right procedures. Kamii (1989) concludes that "since arithmetic was invented by human beings in the past, it is not surprising that today's children invent the same procedures" (p. 27).

Algorithms. Today's algorithms are a relatively late achievement. It was not until the sixteenth century that the use of Roman numerals was replaced by our modern Hindu-Arabic system of numeration (Groza, cited in Kamii, 1989). In contrast to using an abacus, where the person using it has to know whether the place value is ones, tens, hundreds, etc., in a written algorithm, once the columns have been aligned, every column can be treated as ones (Kamii, 1989).

Kamii argues that direct instruction with traditional addition and subtraction of algorithms, where columns of numbers are treated as single units and operated from right to left, inhibits understanding: "By trying to transmit to children, in a ready-made form, the results of centuries of construction by adult mathematicians, we deprive children of the opportunities to do their own thinking" (p. 32).

Kamii points out that when children learn algorithms before they have a well developed number sense, children are forced to give up their own numerical thinking. In contrast, when children are allowed to think for themselves and invent their own solutions, children develop self-confidence in their ability to solve problems and a deeper understanding of mathematical systems. There appears to be abundant theoretical evidence that, as Kamii (1989) argues, "The desire to make sense and to exchange points of view with other people undergrids the child's growing ability to think logically." In the following section the empirical evidence that supports this theoretical framework is discussed.

Research On Children's Numerical Thinking

> "She can't do sums a bit!" the Queens said together, with great emphasis. "Can you do sums?" Alice said, turning suddenly on the White Queen, for she didn't like being found fault with so much. The Queen gasped and shut her eyes. "I can do Addition," she said, "if you give me time -- but I can't do Subtraction under any circumstances!" (Carrol, 1946)

For her doctoral research, Suzanne Colvin, an early childhood educator, explored the way first graders learn to add and subtract, examining the efficacy of various teaching strategies. She observed that young children, though adept at memorizing facts and rules, appeared to have no clear understanding of what they were doing. In addition, she found that story problems were difficult for everyone.

After making sure that three classes were relatively equal in their readiness to learn addition and subtraction, she devised three teaching approaches for the three classes, testing before and after the seven week instructional period. The first class was taught in a traditional manner, according to the instructions in the text book, adopted by the school system. In this approach, facts were presented first, followed by story problems to make use of the just-learned facts.

In the two other classes, Colvin used a constructivist approach, one in which children were encouraged to solve problems in a variety of ways. Teachers' instructional strategies were based on the premise that the exact answer is less important than the thinking process that produces a reasonable answer. In one such approach, which Colvin referred to as "immediate, children were given story problems that were relevant and interesting to them. After the children discussed, drew, or role played the problems, Colvin showed them how to represent the problems and their answers in written symbols. In the third approach, (called "delayed"), children spent five weeks discussing and acting out many mathematical story problems; symbols were presented to the children only during the last two weeks of the project.

A number of differences emerged among the three groups. The immediate and delayed groups both made progress in solving story problems, exhibiting interest in the process and developing confidence in their abilities. The traditional group, however, who never developed any interest in story problems, made no progress in solving them, concentrating instead on getting the right answers to the computational problems. The traditional group also did poorly on writing number sentences to go with story problems and vice versa, while the delayed and immediate groups made steady progress. Despite the fact that the traditional group spent much more time practicing addition and subtraction facts, both the immediate and delayed groups out-performed the traditional group in understanding of arithmetic symbols.

Colvin concluded that daily exposure to interesting story problems seemed to be the most effective approach in helping young children develop higher-order thinking. She also found that subtraction was difficult for all first graders and questioned the efficacy of introducing it at such a young age. From her studies, Kamii (1989) came to a similar conclusion. She notes that subtraction is difficult even for fourth graders and suggests that subtraction should only be introduced in the third grade.

A Piagetian analysis might help to explain why, like the White queen, who couldn't "do subtraction under any circumstances," young children avoid subtraction whenever possible. According to Piaget (1983/1987) all part-whole relationships are hard for young children to make. While addition involves two levels of abstraction (units of one and the whole), subtraction involves thinking in two opposite directions *simultaneously*. Kamii (1989) explains:

> In addition such as 5 + 4 the child begins with two wholes, 5 and 4, at the same hierarchical level and combines them into a higher-order whole in which the previous wholes become parts. On the other hand, in subtraction, such as nine minus five, the child has to deal simultaneously with the whole, 9, and part, 5, which are at two hierarchical levels. Addition involves only "ascending" from the parts to the whole in one direction. Subtraction involves both "ascending" (from the parts to the whole) and descending (from the whole to the parts). This thinking in two opposite directions simultaneously is so difficult that we often hear statements such as "I took away the 5 and the 9," "I subtracted the 5 and the 9, "I subtracted the 5 with the 9," and "Five take away nine equals 4" (p. 76).

How early use of algorithms inhibits understanding. Young children, of course, are typically taught double digit addition and subtraction through the use of algorithms. According to Kamii (1985; 1989; 1991), algorithms unteach place value, hinder children's development of number sense, force children to give up their own numerical thinking, and make children dependent on the spatial arrangement of digits and on other people. A number of studies reported by Fuson (1990) and Kamii (1988; 1991) support this position.

Kamii (1991) describes a digit task where a second-grade child is shown the number 16 and asked to count out 16 chips. The interviewer then draws an imaginary circle around the 6 in the 16, and asks "What does this part mean?" Although typically the child correctly answers six chips, children who do not understand place value usually assign only one chip, rather than ten to the numeral one, the tens digit. In a comparison with children taught algorithms, as opposed to those who were not, 67 percent of the constructivists, and only 15 percent of the traditional group, showed ten chips for the 1 in 16.

Interestingly, when the interviewer asked children to explain their answers, the explanations frequently revealed that math was already a subject that was not expected to make sense. For example, when the interviewer probed, reminding children that they had counted out 16 chips and asked the children, "What about the rest of the chips? Is something strange here?", only a few children replied that something was strange. Most of them said that that was how things were supposed to be.

In data collected in an elementary school, Kamii (1989) again compared answers of second-grade children who had been taught algorithms and those who had not. Most children in both groups were able to get the correct answer to an addition problem, such as 7 + 52 = 186 in vertical form. However, when the problem was presented horizontally, 45 percent of the "no algorithms" class, compared to 12 percent of the algorithms class, got the correct answer. She reports that the important difference lay in the *incorrect* answers. Whereas children in the "no algorithms" class often began by saying "180 and 50 is 230 and most were able to estimate the answer, the algorithm class revealed a poor number sense by their answers, which ranged from 29 (by treating all the numbers as ones) and numbers in the 900s (by adding 7 to the 1 of 186 and carrying 1 from the 10s column).

When similar problems were presented to all third and fourth graders a year later, the performance of the fourth graders who had been taught algorithms was worse that that of the third graders. The magnitude of the fourth graders' errors was greater and their answers indicated that they thought only about isolated columns, treating each column as ones. Kamii (1989)observes:

> By fourth grade we expect children at least to be bothered if they add 6, 53, and 185 and get answers greater than 400 or smaller than 200. However, 39 percent of all fourth graders who had been taught algorithms were undisturbed by such outlandish totals ranging from 134 to 1, 215 . . . When second and third graders can perform so much better than fourth graders, we must conclude that something is seriously wrong with using algorithms in the early grades.

When children who had been taught algorithms transferred to classrooms of constructivist teachers, all had enormous difficulty with place value. However, above-average students, when asked to explain their procedures, quickly concluded that the left-to-right method used by classmates is

easier. Below-average students, however, "Clung tenaciously to algorithms without much progress in knowledge of place value." Kamii (1989) concluded that "human beings are much harder to unprogram than computers and children at the bottom of the class suffer the most from the damage caused by algorithms" (p. 46).

Because algorithms enable children get the right answer, children who are proficient in their use often score quite well on achievement tests. In order to demonstrate that standardized achievement tests emphasize pupils' lower-order thinking, Kamii and Lewis (1991) compared second-graders scores on an achievement test with their answers to questions requiring higher-order thinking. Comparison of children's scores in traditional and constructivist classes scored slightly below the traditionally taught children (79th percentile to 85th percentile). However, data related to place value, mental arithmetic, story problems, and estimation revealed that the traditionally instructed group did not understand place value, had poor number sense, and were unable to deal with novel problems never before encountered.

Summary

It seems clear that using a "jugs and mugs" theory of learning (where the teachers are perceived to be knowledge-brimmed jugs and children the empty mugs waiting to be filled) (Hawley, 1990), that we hinder children's natural inclination to make sense of their experience. School may become a place where nothing ever seems to make sense (Goodman, 1985). Delpit (1995) describes a first grade student who, while proficient in math in the "real" world, was unsuccessful with the decontextaulized problems encountered on worksheets. Yet, outside of school, due to his mother's drug problem, he served as the main caretaker in the family, caring for his four-year-old sister, doing the laundry, and much of the shopping.

> He had become quite an expert at counting money and knowing when or if the local grocer was overcharging. Still, he was unable to complete what appeared to his teachers to be a simple worksheet. Without teachers knowledge of his abilities outside of school he was destined to be labeled mentally incompetent (p. 173).

Helping children connect their experiences outside the classroom with the academic curriculum can do much to bridge the gap between home and school and to make learning meaningful and relevant. Research has demonstrated that children's understanding of mathematical concepts is enhanced by opportunities for children to engage in hands-on manipulation of objects found in their everyday world, inventing their own procedures, and generating and discussing hypotheses in a collaborative setting (Cobb, Wood & Yackel, 1993; Kamii, 1989; Colvin, in Krogh, 1994). Thus, the role of education is not just to "give children the 'right' answers; instead teachers facilitate mathematical understanding by encouraging dialogue and negotiation of meaning in a context of joint inquiry.

COVERAGE, MULTIPLE INTELLIGENCES, AND STANDARDIZED TESTS

As we have seen, the goal of a developmentally appropriate education is to optimize the developmental potential of each child, enhancing children's ability and propensity to think critically, empathetically, and imaginatively and to use their multiple intelligences in the real world. The ability to formulate alternative solutions, ask meaningful questions, resolve conflict, and exhibit cross-cultural competence are not simply ideals to strive for; they are necessary skills for success in the increasingly competitive job markets of the twenty-first century. Yet, if producing the successful employee and citizen requires a post-modernist approach (Elkind, 1994), many of our assessment strategies remain based on positivist assumptions of objectivity, rationality, and efficiency.

As discussed earlier, our educational system has been greatly influenced by the cultural transmission ideology. Because, in this view, the educator's job is the direct instruction of information and rules, the approach is characterized by teacher-controlled learning, instructional technology, quantifiable, and predetermined outcomes. Interacting with and complimentary approach is a psychometric philosophy of education. According to the psychometric philosophy, the learner is seen as having measurable abilities. Individual differences in performance are regarded as reflecting differences in *amount* of ability (Elkind, 1991).

Whereas the goal of a developmental approach is to nurture students' ability to form their own interpretations of a text or event, in a psychometric approach, answers are either right or wrong. Education is seen as imparting quantifiable knowledge and skills which can be measured objectively on standardized tests. According to Elkind (1991), "The developmental approach tries to create students who *want to know*, whereas the psychometric approach seeks to produce students who *know what we want*" (p.9).

Education's "swoon into the arms of quantifiable scientific psychology" (Becker, 1983) has resulted in a reliance on a very powerful knowledge industry, which provides standardized tests and text books. Although many teachers are working to integrate learning and emphasize in-depth understanding, the scientific-technological philosophy of education, which "has successfully reduced all worthy education to observable, measurable answers to multiple choice questions" (Bredekamp, 1991), greatly influences our evaluation practices. In turn, these practices shape curriculum, often becoming, as Bredekamp and Rosegrant (1992) observe, "the tail that wags the dog." Raising the "entire country above the 50th percentile in achievement tests" (Zigler, cited in Kohlberg & Meyer, 1972) has become a driving force in education.

For example, the need to prove that teachers are teaching and children are learning the information contained in text books often forces teachers to "teach to the test." Yet, as Kamii (1991) argues, "Even though teachers and principals are held accountable to produce higher test scores, policy makers and those who purchase these tests are not held accountable to prove that the tests, in fact, improve instruction" (p.9). In fact, many educators argue that standardized tests, while fast and relatively inexpensive (dubbed the "fast food of assessment" by Bredekamp & Rosegrant, 1992), result in no benefits to children and may instead have harmful effects. According to Meisels (1992):

> Readiness tests have been used to track young children into extra-year programs or to convince parents to hold out their children from school until they are year older. Achievement tests have bolstered decisions to retain record numbers of children in kindergarten through third grade. And state-mandated skill-oriented tests in third or fourth grade have helped to bring about a downward spiral in early childhood curricula and early primary teaching (p. 1).

In addition, educators have charged that such tests: fail to describe children's growth, development, and progress; measure a restricted view of intelligence; are unrelated to classroom activities; provide no information to individualize and improve instruction; limit the breadth and depth of content coverage; create stress for children; label and stigmatize some children; are culturally biased; and emphasize lower order thinking (Bredekamp & Rosegrant, 1992; Darling-Hammond, 1994; Hills, 1992; Kamii, 1991; National Research Council, 1989; Shepard, 1989).

Darling-Hammond (1985) found that, not only did teachers teach to the test, but there was a "dumbing down of instruction," an emphasis on drill and practice of decontextualized skills (cited in Shepard, 1989):

> Teachers taught the precise content of the tests rather than underlying concepts; and skills were taught in the same format as the test rather than as they would be used in the real world. For example, teachers reported giving up essay tests because they are inefficient in preparing students for multiple-choice tests (p. 5).

Not surprisingly, children who score lowest on standardized tests are often seen as unready to learn higher order thinking and may be relegated to a "drill and skill" curriculum, that does not enable them to grasp underlying concepts (Levin, 1987). While the intent of such assignment may be to ensure the mastery of basic skills, the result instead may be to alienate children from learning, thus providing the workforce with "graduates (or dropouts) who are just smart enough to throw the correct switch and just fearful enough to do it quickly" (Daniels, 1995).

A Developmental Approach

Evaluation practices have a profound influence not only on instruction but also on the school climate itself. Eisner (1991) points out, "evaluation practices, particularly testing practices, operationalize the school's values. More that what educators say, more than what they write in curriculum guides, evaluation practices tell both students and teachers what counts" (p. 81). The root of the word evaluation is value. Early childhood educators advocate the use of assessments that provide information about what is valued, by teachers, parents, and children.

NAEYC and NAECS/SDE (National Association of Early Childhood Specialists in State Departments of Education) define assessment as "the gathering of useful information for the purpose of constructing understandings about children that guide educational decisions" (Bredekamp & Rosegrant, p. 29). Advocating the integration of assessment with curriculum content and instructional strategies, they propose that the goal of assessment should be to "make school experiences and life better for children" (p. 29). In particular, they voice a strong concern for children's need and right for a psychologically safe environment:

> This means that assessment procedures should not threaten children's psychological safety nor violate their physical needs -- no more frightening kindergartners with warnings like, "During the test, I can't help you" or "You can't go to the bathroom during the test" (p. 30).

NAEYC's stance on standardized, paper-and-pencil achievement tests for young children is unequivocal: "*The use of such tests is inappropriate throughout early childhood*" (p. 29). Rather, according to the NAEYC and NAECS/SDE guidelines, assessment should address all areas of children's development, emphasize the inter-relatedness of developmental domains, and utilize multiple sources of information. Assessments provide information for a variety of educational decisions, including: (a) to plan instruction for individuals and groups and for communicating with parents, (b) to identify children who may be in need of specialized services or intervention, and (c) to evaluate how well the program is meeting its goals Rosegrant & Bredekamp, 1992 (p. 22).

In order to make sound educational decisions, authentic assessments, that reflect the child's performance during typical activities in the classroom, are the primary assessment strategy in a developmentally appropriate classroom. Teachers are encouraged to be "kid watchers" (a term coined by Yetta Goodman in 1978), seeking to understand learning from the child's point of view. An interview with a teacher, who made this approach an integral part of the learning experience, illustrates the important role of self-reflection and sensitive attention to children's perspectives (Paley, cited in Thomas & Oldfather, 1995):

> The act of teaching became a daily search for the child's point of view, accompanied by the sometimes unwelcome disclosure of my hidden attitudes. The search was what mattered -- only later did someone tell me it was research -- and it provided an open-ended script from which to observe, interpret, and integrate the living drama of the classroom (p. 194).

Teachers, then, are expected to know a lot about children in general and the children in their classrooms, in particular, through on-going observation, conversation, and documentation. Children's families play a central role in the educational process; caregivers are encouraged to share information about their children, their interests, strengths, and learning styles. In addition, assessments reflect cultural and linguistic diversity and provide information that enables teachers to build on children's strengths (Bredekamp & Rosegrant, 1992).

Portfolio assessment. Over the last few years, the use of portfolios for children of all ages has gained in popularity. Portfolios are an organized collection of children's work that provide a continuous record of a child's progress over time and typically travel with the child throughout the primary grades. One of the strengths of portfolios is that they reflect multiple voices and perspectives: that of children, parents, and teachers. They include writing samples, art work, self portraits, stories, audio tapes of children's oral reading and speaking, photographs, self-portraits, math papers, teacher and parent reflections, summaries of progress, and children's self-reflective comments about their work. Based on the assumption that children should be active *participants* in their own assessment (rather than passive *objects* of assessment), children are encouraged to make judgments about their own work and reflect on their progress during frequent individual and group conferences. Paulson and Meyer (1991) observe:

> Portfolios have the potential to reveal a lot about their creators. They can become a window into the students' heads, a means for both staff and students to understand the educational process at the level of the individual learner. They can be powerful educational tools for encouraging students to take charge of their own learning (p. 61).

Because the portfolio starts where the child is, it is a non-threatening way to assess children's learning. Teachers and parents can focus on what children can do, rather than what they can not and children are able to see themselves as successful learners. In place of a static grade which may stay the same over time, parents are able to compare their children's work at different times and to understand that their children are learning. In a study by the author, teachers reported that a typical comment might be, "She really is learning; I can hear her learning to read" (Novick, 1996). Such comments may be included in the portfolio.

Unlike many traditional assessments, that are external to or even in conflict with instruction, portfolios may become an integral part of the learning process. Herman and Winters (1994) reported that the majority of principals interviewed in Vermont's portfolio assessment program believed that portfolio use had beneficial effects on curriculum and instruction and helped to promote school change. Because portfolios are the result of a collaboration between teachers, parents, and children, they play a critical role in helping to develop shared meaning and shared memories. Kieffer and Morrision (1994) explain:

> In a way, the students and teachers become researchers, and the stories that they tell build an ethnography . . . A portfolio ultimately represents a creation of self, a whole life portfolio. Its contents, like items in a scrapbook, are tangible pieces of the story. They are ways to remember. A portfolio becomes an ethnography of the person, an ethnography of the teacher, an ethnography of learning. Everything is connected (p. 412).

Although portfolios provide many benefits for children, teachers, and parents, portfolio assessment is more time consuming than more traditional short answer testing methods (Salinger & Chittenden, 1994; Roe & Vukelich, 1994). Reading and reflecting on children's work and discussing their work individually and in small groups create an interpretive, interactive learning process that may be at odds with a school culture that encourages efficiency, standardization, and objectivity. Some districts try to solve the assessment dilemma by requiring teachers to use a double system of record keeping, in order to document children's acquisition of discrete skills. However, the competing responsibilities of utilizing two incompatible systems may be overwhelming to teachers (Roe & Vukelich, 1994). In order for authentic assessment practices to be successful, the wider environments, such as the district and state levels, must understand and support the philosophical basis for these practices.

In addition to portfolios, a number of authentic assessments have been developed to address the need for assessments that reflect what we know about how children learn and develop. The *Work Sampling System* (Meisels, 1992) is a performance assessment system that offers an alternative to product-oriented, group-administered achievement tests in preschool through grade three. It consists of three complementary components: (a) developmental checklists that guide teacher observations with specific criteria and well-defined procedures (b) portfolios, and (c) summary reports, which provide year-end comparative and aggregate data.

According to Meisels (1993), the checklists are intended to reflect common activities and expectations in classrooms that are structured around developmentally appropriate activities. They cover seven domains, including: personal/social development, language and literacy, mathematical thinking, scientific thinking, social studies, art and music, and physical development. Guidelines, which accompany each checklist, are intended to ensure consistency across classrooms. The three components work together to provide a comprehensive picture of a child's development and accomplishments, to guide instruction and to share with parents.

English Profiles (Ministry of Education and Training, 1991) are a means for reporting on a student's progress and achievements in key areas of literacy learning, including spoken language, reading, and writing. Originally developed by teachers in Victoria, the Profiles are scales of achievement on which a child's progress can be charted. Although well researched criterion referenced tests, such as TORCH (Test of Reading Comprehension) are used to support more informal assessments, the primary assessment strategies are anecdotal notes, observation diary, checklist, and learning logs.

Spectrum, based on Howard Gardner's theory of multiple intelligences and David Feldman's theory of development in non-universal domains, identifies domain-specific strengths in areas often not included in classrooms, even developmentally appropriate ones. According to Project Spectrum's Director Mara Krechevsky (1991), "*Spectrum* is based on the assumption that every child has the potential to develop strength in one or several content areas and that it is the responsibility of the educational system to discover and nurture these proclivities" (p. 44). *Spectrum* measures children's learning through a wide variety of rich activities, in the areas of numbers, science, music, language, visual arts, movement, and social. Because the approach offers many ways to demonstrate competence, Krechevsky concludes, "At best, the *Spectrum* approach promises to increase the chances for all children to find their place in the sun" (p. 48).

These efforts and others, including teacher constructed assessments, used specifically for their own classrooms, offer promising ways for educators to make assessment a more integral part of the learning process. Engel (1993) concludes that supportive, child-friendly, and learning-enhancing measures can also produce aggregate data for accountability to the public. Field testing of such instruments, as well as more research, is needed to provide teachers and parents with meaningful and effective assessment practices.

Summary

It seems clear that standardized assessments are at-odds with educational practices that encourage the deepening of understanding through in-depth, interdisciplinary study of a topic and the use of multiple sources of information and intelligences. As long as our educational system considers coverage of a prescribed curriculum, mastery of discrete skills, and increasing achievement test scores of paramount importance, implementing a "mindful" (Bredekamp & Rosegrant, 1992) and "thinking" (Darling-Hammond, 1994) curriculum will remain problematic.

Teachers striving to implement such a curriculum will often struggle to meet the requirements of two incompatible systems, based on widely differing philosophies of education. They may feel caught between coverage and making sense of things, between nurturing multiple intelligences and

raising standardized test scores. In our efforts to "get children ready for next year," schools frequently emphasize vertical learning -- the learning of skills and facts -- at the expense of horizontal learning -- the deepening of understanding (Kostelnik, 1992).

While skills and meaning, parts and wholes, process and products are all essential to the learning process, young children need to establish a rich, solid conceptual base from which all future learning will proceed (Kostelnik, 1992). Such a base enables children to make sense of their experience by forming connections between what they know and understand and the knowledge and concepts encountered in the new environment. Without this base, learning facts and isolated skills may resemble nonsense-syllable learning, often quickly mastered, and just as quickly forgotten. Early childhood educators are concerned that children have the capacity and opportunities to *use* their knowledge and skills within the context of meaningful activities, both inside and outside the classroom. As Dorris Lessing has observed, true learning is understanding something on deeper and deeper levels.

Improving the match between assessment and a "mindful" curriculum can do much to reduce the tension that many teachers feel, as they work to implement a curriculum that is responsive to how children learn and develop. Authentic assessments provide a more meaningful picture of children's development than standardized test scores. They address a much broader definition of intelligence, encourage children to become reflective, self-directed learners, help parents to see their children's progress, and enhance children's, parents,' and teachers' ability to develop shared meaning and memories.

MULTIAGE GROUPING:
A COMMUNITY OF LEARNERS

> Although humans are not usually born into litters, we seem to insist that they be educated in them (Katz, 1995).

Mass public education, it has been argued, was instituted and continues to be shaped by the perceived needs of the work place. Originally instituted to meet the need for a well-disciplined, homogeneous, semi-literate work force to "man" the factories and assembly lines, one of the roles of school, according to some educators, was to "teach children to endure boredom in order to inoculate them to the boredom they would surely encounter on the assembly lines (Eisner, 1994, p. 13). Henry Ford summed up the needs of the early twentieth century workforce, "Why is that I always get a whole person when all I really want is a pair of hands?"

But if a primary goal of education was to meet the demands of the market place, the broad democratization of schooling also was based on a new and egalitarian belief that every child was not only entitled to an education free of charge but capable of profiting from such an education (Becker, 1983). However, the application of a factory model to the "business" of schooling, with its hierarchical structure and the goal of efficiency and standardization, resulted in an equation of egalitarianism with sameness. Children were expected to learn the same subjects in the same way, on the same schedule, and in the same place, typically in a self-contained school room with one teacher and about thirty students. By 1870, the "egg-crate elementary school, where children are moved in batches through prescribed curriculum," had all but replaced the non-graded school in which students of different ages learned alongside each other (Tyack & Tobin, 1994).

During the last ten years, due in large part, to the influence of DAP, many researchers and educators have advocated the implementation of non-graded primary school structures. Called variously mixed-age, multiage, ungraded or non-graded, and family grouping, these heterogeneous groupings allow children of various ages (usually a span of one to three years) and abilities to learn together and from each other. Based on the belief that, unlike units rolling off an assembly line (Eisner, 1994), children are expected and encouraged to exhibit individual differences, multiage classrooms allow children to progress according to individual rates of learning, without being compelled to meet normative standards (Katz, 1994).

Increasingly, educators and researchers agree that grouping children by age encourages comparisons between "like kinds," penalizing children who lag behind their peers in one or more areas of development (Cuban, 1989; Eisner, 1994; Shepard & Smith, 1990; Miller, 1995). Thus, multiage grouping may be particularly advantageous for at-risk children and children with special needs by helping them avoid the social and emotional damage caused by the inability to meet age-related achievement expectations. Miller (1995) observes:

> The graded school fosters the myth of homogeneity, a belief that all children in a given grade reflect the skills and abilities the curriculum ascribes to that particular level. Children not performing at grade level find themselves remediated or subtly classified as below standard. Students internalize these normative views of grade level and apply evaluative judgments to themselves when they do not measure up.

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As discussed earlier, retention is not only emotionally harmful to children, but the practice typically does not lead to improved academic performance (Shepard and Smith, 1990). On the other hand, social promotion may increase the gap between what children know and school expectations, with the result that children fall further and further behind. In multiage classrooms, teachers are encouraged to see children as unique individuals, plan for a wide range of abilities, and adjust to individual needs, enabling slower children to catch up to their classmates, without the stigma associated with ability grouping or retention (Lodish, 1992).

If this sounds like a lot of work, researchers agree that multiage grouping requires teachers to exhibit greater flexibility and organizational ability, possess a greater repertoire of instructional strategies and skills, and take more time for planning and materials preparation. (Miller, 1994; Nye, 1993). In addition, research has found few, if any, differences in academic achievement for most children in graded and non-graded classrooms (Cotton, 1993; Katz, Evangelou & Hartman, 1990; Miller, 1990). Why, then, would teachers choose to embark on such a labor intensive endeavor?

Advantages of multiage grouping. If same-age groupings foster comparisons and competitiveness among children, research on multiage classrooms has consistently found that such heterogeneous groupings encourage and invite cooperation and pro-social behaviors, such as giving, sharing, taking turns, and sensitivity to others (Chase & Doan, 1994; Katz, Evangelou & Hartman, 1993; Pratt, 1986). Pratt (1986) writes:

> Children's friendships, both in classrooms and in naturalistic settings, have been one theme of the multiage research. The general picture that emerges from these studies is one of increased competition and aggression within same-age groups and increased harmony and nurturance within multiage groups (p.112).

Because children typically remain with the same teacher or team of teachers for at least two years, children have the opportunity to develop friendships with other children, to establish a trusting relationship with the teacher or teachers, and become familiar with the expectations of the classroom. In fact, research overwhelmingly favors multiage grouping because of its positive effects on children's social and emotional development and on the classroom climate (Cotton, 1993). Researchers have reported improved self-esteem, self-concept as a learner, reduced anxiety, and improved attitudes toward school (Anderson & Pavan, 1992; Katz, Evangelou & Hartman; Miller, 1995; Pratt, 1986). Pavan's analyses of longitudinal data also revealed that the longer children are in multiage programs, the more positive their school-related attitudes become (Cited in Cotton, 1993).

Lougee and Graziano (1986) suggest that self-regulation of older children may be enhanced when they are put in the role of mentor and initiator into the class culture, explaining rules and routines. Researchers report that multiage classrooms frequently experience fewer discipline problems. A teacher explains why she feels that behavior problems have decreased since moving to multiage:

> This has been my easiest year of teaching. There are fewer cliques, less feeding off (disruptive behaviors) each other. By keeping the kids for two years, older kids can help the younger kids. They explain the rules and directions, they help the younger students organize their studies (Novick, 1995, p. 58).

In a mixed group, older children have many opportunities to nurture younger children, reading stories and listening to children read, explaining a concept, or helping with routine activities. In particular, children whose social adjustment is at-risk may derive benefits from taking a leadership role. Furman, Rahe, and Hartup (1979) found that by pairing withdrawn preschoolers with younger children, positive interactions with their peers nearly doubled, essentially to the same level as the social interaction of the non-isolate children (p. 920).

It is likely that all children benefit from being in a leadership role. Katz (1995) writes: "When we ask a five-year-old to be tolerant of a four-year-old's first fumbling attempts to put on his or her jacket, or a six-year-old to be appreciative of a five-year-old's early efforts to read, we have the beginnings of parent education." Rosegrant (1992) points out that multiage grouping in a multilingual classroom also holds the potential for providing additional linguistic role models for children. In addition, the act of teaching a younger child helps an older child deepen his or her own understanding of a subject, at the same time that the younger child is helped to engage in more complex activities. Of course, teachers need to ensure that older children do not overwhelm younger children and that younger children do not become a burden to their older classmates (Katz, 1994). In addition, ensuring that older children are sufficiently challenged by the curriculum is an important consideration.

Clearly, multiage classrooms offer many advantages, including fewer retentions, positive effects on children's social and emotional development, an improved social climate, and more individualized attention. Teachers often report an enhanced sense of professionalism and efficacy. Nye (1994) reports that teachers often say, "I'm working harder, but I love it because the children really want to learn, and I can see that they are learning" (p. 44). When children are encouraged to learn at their own pace in a supportive, family-like environment, they are free to develop their interests and learning styles, without fear of failure. As Miller (1995) notes, "Multiage classrooms give kids room to be themselves."

Issues To Consider

Educators who have implemented multiage classrooms have identified a number of factors that influence the success of such programs. Educators are unanimous in advising that top-down mandates are ineffective in creating a positive and supportive climate of change (Darling-Hammond, 1994; Espinosa, 1992; Meier, 1995). Rather, change should be looked at as a developmental process that takes time, preparation, supportive leadership, and the active participation of all involved (Novick, 1996). The number one recommendation by Goodlad and Anderson (1987) to school personnel considering multiage classrooms was to take time to facilitate full parental understanding (Cited in Byrens & Scuster, 1994). Including parents and community representatives in program planning from the beginning helps build understanding and support.

Also central to the success of multiage grouping is a curriculum that is flexible and responsive to children's individual needs and strengths. While children may sometimes be grouped homogeneously to learn basic skills within the context of authentic activities, the majority of the day should be spent in activities that maximize the benefits of interaction and cooperation among children. A well planned integrated curriculum, organized around themes and projects, provides experiences that allow children to participate and contribute at their developmental level (Wills, 1995).

In order to implement such a curriculum, teachers should be experienced in or interested in child development and developmentally appropriate practices, including cooperative learning, whole language, authentic assessment, and integrated curriculum. Because teachers, like all professionals, benefit from mutually supportive networks that maximize collegial cooperation, experts on multiage primary programs strongly recommend the use of teaching teams (Cotton, 1993). Opportunities for observing successful programs, for training and support, and dialogue and reflection with colleagues are considered essential (Nye, 1993).

A Community Of Learners

> Being able to think imaginatively, resolve conflicts with grace, trade ideas with others and feel compassion are the building blocks of human relationships...How different some adults' lives would be if they had learned these skills as children (Heidemann & Hewitt, 1992).

Advocates of multiage grouping emphasize the family-like atmosphere, in which younger family members have many opportunities to observe and imitate the competencies of older members, and as a method of maintaining family bonding. This atmosphere is especially compatible with the values of the Latino community and other non-European groups (Rosegrant, 1992). In addition, a number of researchers have pointed out that children live increasingly in an age-segregated society--in child care and schools -- and spend less time with families and in neighborhoods, which include a range of ages. Thus, children have fewer opportunities to observe adult members of the community engaged in meaningful work and play than ever before (Bruner, 1972; Katz, 1994). Bruner (1972) contrasts the modern Western child with a child in a society that provides continuity for their youngsters' socialization:

> Like children everywhere, Pygmy children love to imitate their adult idols. This is the beginning of their schooling, for the adults will always encourage and help them. What else is there to do except to grow into good adults? So a fond father will make a tiny bow for his son, and arrows of soft wood with blunt points. He may also give him a strip of hunting net. A mother will delight herself and her daughter by weaving a miniature basket. At an early age, boys and girls are playing house . . .
>
> They will also play at hunting . . . And one day they find that the games they have been playing are not games any longer, but the real thing, for they have become adults. Their hunting is not real hunting; their tree climbing is in earnest search of inaccessible honey; their acrobatics on the swings are repeated almost daily, in other forms, in the pursuit of elusive game, or in avoiding malicious forest buffalo. It happens so gradually that they hardly notice the change at first, for even when they are proud and famous hunters, their lives are still full of fun and laughter (Turnbull, 1961, pp. 128-129).

In contrast, in our society, the work of adults has become increasingly separated from the play of children, with each generation understanding less and less of what the other is about. By "letting the young have more of a hand in the teaching of the younger" (Bruner, 1972), children experience more continuity in their learning. Creating a community of learners, in which all members see

themselves as both teachers and learners, enables children, teachers, and families to develop shared understandings about what is important to know and why it is important.

Efforts to create this environment must include not only an emphasis on the traditional "3 Rs," but also a great deal of attention to reflection, respect, and building relationships. As Meier notes, "Caring and compassion are not soft, mushy goals. They are part of the hard core of subjects we are responsible for teaching" (p. 63), essential not only for individual fulfillment but for our communities and our society to prosper. Multiage classrooms, by encouraging cooperation, mentoring, and an ethic of caring, can play an important part in helping children develop the habits of mind they will need to contribute to the creation of a more just and caring society.

BRINGING IT ALL BACK HOME:
FAMILY/SCHOOL/COMMUNITY PARTNERSHIPS

Partnerships With Families

It is clear that the family is not only the nucleus of civilization, as historian Will Durant observed, but also the key to education (Boyer, 1991). Early intervention research demonstrates the vital importance of family involvement. Researchers have found that the earlier in a child's educational process family involvement begins, the more robust the benefits will be (Epstein, 1992). Perhaps the most powerful form of parental involvement occurs when parents are actively engaged with the child at home in ways that lead to optimal development. In the first few years of a child's life, providing a psychologically safe and responsive environment lays the foundation for healthy emotional and cognitive development.

Whereas in the first year of life, establishing a sense of trust and security is critical, between 12 and 18 months, the salient issue is the exploration and mastery of the environment. At two years of age, a major issues is the child's emerging sense of autonomy (Egeland & Erickson, 1987). Successful negotiation of these developmental tasks (e.g., the development of autonomy) is considered essential for later developmental competencies, including the establishment of positive peer relationships, adaptation to the educational environment, and the motivation to achieve (Cicchetti, Toth & Hennessey, 1989). Thus, according to developmental psychologists, the formation of a secure attachment relationship with primary caregivers during the first year of life is perhaps the most important developmental task of infancy. Psychologist Selma Fraeberg (1959) writes:

> Our personal identity -- the very center of our humanness -- is achieved through the early bonds of child and parent. Conscience, itself, the most civilizing of all achievements in human evolution, is not part of constitutional endowment, but the endowment of parental love and education (p. 301).

Developmental psychology, then, has provided abundant evidence that parents are the child's first and most essential teacher. Encouraging and supporting parents in this role can have a positive effect on children's learning. The U. S. Department of Education report, *Strong Families, Strong Schools* concluded that, in addition to providing a responsive, language-rich environment, the single most important parental activity for eventual success in reading is reading aloud to children (Riley, 1994).

As children grow and enter preschools and later elementary and secondary schools, families can provide continuity by creating an environment that reinforces learning. Families can help their children develop a love of literacy, develop critical thinking skills by encouraging reading and discussing meaningful issues outside the classroom, encourage children to develop a range of intelligences, and reinforce learning that takes place in the classroom (Riley, 1994). By encouraging and providing opportunities for meaningful family involvement, schools play a critical role in bridging the gulf between home and school. Both children and schools benefit when teachers use knowledge about children's families and experiences outside the classroom to create individually and culturally relevant learning experiences.

Child care and early intervention. Early childhood education has a long tradition of valuing program-family connections. Strongly held beliefs that early socialization is the right and responsibility of the family have resulted in high levels of parental choice regarding the care and education of young children (Powell, 1994). Because child care and preschools have operated in open-market conditions with little oversight from the government, parents have been able to influence programs to a far greater extent than in formal education (Holloway & Fuller, 1992).

Since the 1960s, family involvement in early childhood programs increasingly has been conceived of as a relationship involving two-way communication, mutual respect, and, in some cases, shared decisionmaking (Powell, 1991). There is recognition that continuity and consistency between home and school are important factors in providing a strong and secure foundation for children during their early years. Parents who actively participate in their children's education during the early years have the opportunity to learn skills and develop positive attitudes toward school, thereby enhancing their ability to effectively support their children's learning throughout their educational experience (NASBE,1988).

The value of parental participation in their young children's education is particularly well documented for low-income and ethnic minority families. In a number of studies of preschool programs, researchers concluded that programs with high parental involvement were far more likely to produce long-term gains than child-focused programs (Bronfenbrenner, 1974; Lazar & Darlington, 1979). Since 1970, the national Head Start office has adhered to performance standards that require parental involvement in decisions about program operation. Head Start parents are welcomed not only as participants, but as decisionmakers (Mallory & Goldsmith, 1990).

The discipline of early childhood/special education has long recognized the important role of families. As in regular early childhood programs, the role of parents has changed over the years. Turnbull and Turnbull (1990) trace the development of the role, from parents as problem source, in need of "parent training," to parents as political advocates, decisionmakers and family members. Recently, the field has moved toward a "family-guided" approach to intervention. Legislation passed in 1986 (P.L. 99-457), which established the Individualized Family Service Plan (IFSP), places the family "squarely in the center of the assessment and intervention process" (McLean & Odom, 1993).

The field of early childhood education, then, has been a pioneer in working with parents (Powell, 1994). However, as Bredekamp (1993) points out, the family focus is strongest in programs, such as Head Start, designed for at-risk children, and in those designed for children with disabilities, while it is weakest for children perceived as less vulnerable.

Philosophical considerations. Philosophical differences between parents and school personnel regarding educational practices can present challenges to effective collaboration. For example, the child centered educational approach advocated by NAEYC is incompatible with the more directive and academic approaches desired by "fast-track parents raising fast-track children" and by many low-income and ethnic minority parents (Kagan, 1991). As argued earlier, child development knowledge is embedded in a socio-cultural context. Laosa (1983) points out, "Groups differ in their views of what constitutes desirable behavior on the part of their children; they differ, moreover, in the conceptions of the attributes that define 'optimal development'" (p. 337).

The DAP guidelines emphasize program-family continuity and regular communication between family and staff; the parent-staff relationship is defined as a "partnership" (p. 12). Yet the guidelines were designed, in part, to enhance the professional status of the field and make a claim to a distinctive body of knowledge for work with young children. While the responsibility of staff to share child development knowledge with parents is clearly stated, the role of parents as decisionmakers is less clear (Powell, 1994). Powell (1994) points out that "the call for parents to share in decisions about their children's care and education is a one-sentence recommendation" (p 177) and the report offers no formal mechanism for including parents in the formal decisionmaking structures of a program.

As the field moves toward an inclusive and empowering approach, the parent-school relationship becomes more ambiguous. Just as children are no longer looked at as blank slates, parents are no longer looked at as "empty vessels waiting to be filled with professional expertise" (Weiss,1987). It is recognized that parents have a wealth of knowledge which can add to the school learning environment. However, Weissbourg (1987) cautions that parent-school partnerships do not mean that professionals should abdicate the professional role. She suggests that parents be viewed as experts about their own particular child and cultural environment, while professionals contribute broad expertise in and knowledge of their field. She points out that while teachers and other service providers must "monitor tendencies to be judgmental, controlling, or overly didactic, they must now also monitor tendencies to be too laissez-faire or value free" (p. 257).

The dilemma, of course, is how to value and include multiple perspectives, while at the same time advocating for educational practices which are based on our best understandings about how children develop and learn. Bowman and Stott (1994) note, "Only if parents and teachers can collaborate are children free to learn from both" (p. 136). Clearly, developing partnerships with families is complex and challenging. As the citizens of Reggio Emilia acknowledge, the process of maintaining a dialogue between parents and teachers is one "which is and should be complicated" (Malaguzzi, 1993, p. 11). Fortunately, the field of early childhood education has a long history of working with parents and can draw on the expertise and experience of both parents and professionals to enhance developmental outcomes for all children.

Public schools. Although public schools have traditionally not placed a strong emphasis on parental involvement and support, a number of factors have contributed to the current focus on parental involvement as a way to improve educational outcomes for all children, particularly children from low-income families. During the last 20 years, vast economic and demographic changes have resulted in increased economic hardships and stress for many families, together with accompanying pressures on schools to increase our nation's competitiveness in a global economy. There is growing recognition that fostering "readiness" for kindergarten and succeeding educational environments will require us to address the strengths and needs of the whole child.

The National Education Goals Panel endorsed a complex, multi-faceted definition of readiness, which includes physical well-being and motor development, social competence, approaches toward learning, language and literacy, cognitive development, and general knowledge (NEGP, 1994). This comprehensive definition requires a new approach to schooling, including shared responsibility for children's development which "will likely permanently alter the school's relationship with families and communities" (Kagan, 1992, p. 8).

Recognizing the vital role which parents play in their children's education, Title IV of the National Education Goals 2000: Education America Act, encourages and promotes parents' involvement in their children's education, both at home and at school. Three decades of research have demonstrated strong linkages between parental involvement in education and school achievement (Riley, 1994). Parental involvement is highest among middle- and upper-class families. However, regardless of the parents' education, parental involvement with children's schooling is associated with better attendance, higher achievement test scores, improved attitudes and behaviors, and stronger cognitive skills. In addition, when parents help elementary school children with their schoolwork, social class and education become far less important factors in predicting the children's academic success (Darling, 1992).

Yet, typically, teachers have little time to form partnerships with parents and caregivers. Because teaching is defined as "time on task" in a classroom setting, compared to most countries, U.S. teachers have very little "released time" to plan, work collaboratively, or to meet with parents (Darling-Hammond, 1993). In addition, teachers and principals have seldom received training in forming partnerships with families. The Harvard Family Research Project (1994) surveyed state certification requirements and pre-service education programs to document the content of parent involvement requirements and training opportunities for pre-k to 12 teachers. They found that the majority of states do not mention parent involvement in teacher certification requirements. When programs do exist, the training is often minimal and traditional.

Practical considerations. The changing structure of American families is a much talked-about subject.

> A family is a unit composed not only of children, but men, women, an occasional animal, and the common cold. (Ogden Nash)

While scholars and politicians debate the causes and consequences, it is clear that fewer and fewer families meet all of Nash's criteria. It is equally clear that time is a declining natural resource for both children and parents (Louv, 1992). As children and adults "pass each other in the night at ever accelerating speeds," (p. 5) the opportunity for parents to spend "quality time" with their children has decreased dramatically over the years. A study conducted by Pittsburgh's Priority Management Company in 1988 revealed that the average working couple spends four minutes a day in meaningful conversation with each other, and the average working parent spends thirty seconds in meaningful conversation with his or her children (cited in Louv, 1992).

A number of strategies, both formal and informal, have been identified by practitioners and researchers to enhance parent-school communication, without putting additional demands on already overburdened families. These strategies include two-way notebooks, an open-door policy, where parents are invited to visit at their convenience, frequent phone calls, family-friendly homework, newsletters, invitations to participate in field trips, and flexible scheduling for school activities, including activity nights, lunch programs, and classroom reading. Acknowledging that many parents are too busy to participate in school activities, parents can be encouraged to reinforce their children's learning in a number of ways. Making sure that their child is at school every day and showing interest in their school day are seen as basic and important forms of involvement.

"Hard to reach" families. While traditional forms of family involvement have focused on the supposed deficits of low-income and/or minority families, new models congruent with early childhood care and education philosophy emphasize building on family strengths and developing partnerships with families based on mutual responsibility. In these approaches, parents are involved as peers and collaborators rather than clients, resulting in benefits for children, families, schools, and communities: (a) Children's improved attitudes, achievement, and behavior have a positive impact on schools; (b) Parents' positive attitudes toward school and improved rapport increases parents' willingness to support schools with labor and resources; (c) Benefits to families include increased self-confidence and competence in parenting, more positive attitudes toward school, and increased formal and informal support.

Although educators may emphasize the content of family involvement activities, it is the relationship with school personnel that may profoundly influence parents' ability to benefit from the educational or social service services provided. For example, Goodman, Sutton, and Harkavy (1995) evaluated the effectiveness of family workshops in a middle school setting. They note, "Apparently, just getting together in a caring and respectful atmosphere was a tremendous help to all precipitants" (p. 698).

Fruchter, et. al. (1992), have identified four tenets of programs which have been shown to improve the educational outcomes for all children, particularly low-income and minority children:

- Parents are children's first teachers and have a life-long influence on their children's values, attitudes, and aspirations.
- Children's educational success requires congruence between what is taught at school and the values expressed in the home.
- Most parents, regardless of economic status, educational level, and/or cultural background, care deeply about their children's education and can provide substantial support if given specific opportunities and knowledge.
- Schools must take the lead in eliminating or at least reducing traditional barriers to parent involvement.

Low-income, minority, and parents who speak languages other than English may face numerous barriers when they attempt to collaborate with schools. These barriers include: insufficient time and energy; lack of language proficiency, feelings of insecurity and low self-esteem, lack of understanding about the structure of schools and accepted communication channels, cultural incongruity, race and class biases on the part of school personnel, and perceived lack of welcome by teachers and administrators (Fruchter et. al., 1992; SREB, 1994).

Given these potential barriers, it is not surprising that research has demonstrated that successful parent involvement programs must have a strong component of outreach to families. Studies show that school practices to encourage parents to participate in their children's education are more important than family characteristics, such as parent education, socioeconomic, and marital status (Dauber & Epstein, 1993). A 1988 study of parental involvement in schools concluded that it wasn't parents who were hard for schools to reach, but schools that were hard for parents to reach (Davies, 1994).

Home visiting programs, sometimes with parents visiting other parents who become links between parents and schools, have been effective in increasing participation of "hard to reach" parents (Davies, 1994). Davies also reports that parent centers, where parents can chat with other parents and teachers, watch videos, and learn about school activities, are a highly effective way to communicate to parents that they are welcome at school.

Parent information centers, which provide resources and information about health and social service agencies, adult educational opportunities, child development, school policies and procedures, and how to support their child's education, is another promising approach to promote parent/school collaboration. Family advocates, who may be funded with Title 1 monies, can play an important role in bridging home and school and breaking down barriers which inhibit home/school partnerships. They frequently work with students, individually and in groups, on conflict resolution strategies, problem solving skills, and help families access needed health and social services.

Family literacy programs, such as Even Start and the Kenan model, have been successful in bridging the gap between home and school by providing enjoyable intergenerational educational experiences. Based on the premise that the family literacy environment is the best predictor of a child's academic success, the goal of family literacy programs is to provide opportunities for children and parents to learn together. Programs may include book give-a-ways, lending libraries for parents, workshops on story book reading, early childhood programs, adult basic and parenting education, and coordination with other service providers.

Parents are encouraged to see themselves as important teachers, even if they have limited reading skills. For example, parents are encouraged to engage in a variety of enjoyable activities with their children, providing questions and comments that promote language development, and to view story telling as an important literacy activity that lays the foundation for learning to read. Linguistically diverse parents are encouraged to tell stories, to read to children in their primary language, and to share knowledge of their culture, helping the child to connect their life outside the school with literacy activities.

For schools to be responsive to the needs and strengths of families, they must develop partnerships, not only with families, but with community service providers. Kagan (1991) asserts that nothing short of a basic restructuring, both within the school and in the school's relationship with parents and communities, will enable social institutions to deal with rapidly increasing social problems.

Community Partnerships

> To the doctor, the child is a typhoid patient; to the playground supervisor, a first baseman; to the teacher, a learner of arithmetic. At times, he may be different things to each of these specialists, but too rarely is he a whole child to any of them (White House Conference on Children, cited in Usdan, 1994).

Undoubtedly, some of the language in the above statement might provide the reader with a clue as to its antiquity. Most politically correct speakers would use he/she (or perhaps he/she) and typhoid is not making a resurgence. However, the sentiment is as applicable today as it was in 1935 when this speech was delivered at the White House Conference on Children. Despite growing awareness of the need to view a child in context, embedded in a family, community, and a larger society, our

service delivery system remains specialized, fragmented, and often inaccessible to children and families.

Bronfenbrenner's ecological perspective (1979), Sameroff and Chandler's transactional model (1975), and family systems theory all emphasize the inter-relatedness and mutual influence of interacting individual, family, and societal systems. It has become axiomatic that if we want healthy communities, we need healthy families and children. As early as 1974, Bronfenbrenner argued that in order for early intervention to be effective, parents need ecological intervention in the form of family support systems.

Yet this paradigm shift has made little difference in our service delivery system. Based on a deficit model, the system remains fragmented, rigidly categorical, and crisis oriented, responding only to a clearly diagnosed problem, typically when it has gone unattended for too long (Farrow & Joe, 1992). Unlike many countries which provide an array of family support services that benefit poor and non-poor alike, our country created a distinction between social insurance, such as social security, and public assistance or welfare. This policy, in turn, leads to a distinction between worthy and non-worthy poor, creating stigma for anyone in need of assistance and "guaranteeing just enough support that they can't really make it" (Bronfenbrenner, 1979).

In addition, the tradition of separating education from other government institutions has created a school culture that is often self-contained, detached, and insular (Usdan, 1994).

Our human services delivery system contains three components: education, health, and social services. Referred to as the "iron triangle" by Farrow and Joe (1992), each system has its own organization, funding, and professional perspective. In effect, each component has its own culture and language, a culture which is often as impenetrable to other service providers as it is to the families it serves. The rapidly increasing numbers of at-risk children have provided an impetus for bringing our service delivery system more in line with what we know about children and families.

It is by now well understood that children bring more to school than their cognitive abilities (or deficits) and that schools alone cannot help children become competent and contributing members of their communities. If our educational focus is to broaden from a purely academic approach to include physical, social, and emotional development, collaboration among service providers will be essential.

School-linked services.

> It is imperative for schools to be involved extensively in collaborative initiatives. Why? To paraphrase the response of famed bank robber Willie Sutton who, when asked why he robbed banks, said, "That's where the money is," that's where the children are (Usdan, 1994).

Tyack (1992) describes two current conceptions or visions of educational reform: a "nation-at-risk" model or a "children-at-risk" model. In a nation-at-risk model, the goal of education is to improve academic performance to make our country more competitive in a global economy. Effective education, then, focuses on strict instruction in the "basics," eliminating extraneous features such as collaboration with social services agencies. According to Eisner (1991), this

viewpoint portrays education as "a competitive race, the front line in our quest for international supremacy" (p. 10).

In a children-at-risk model, rather than increased competition between children and schools, the goal becomes meeting the health and social needs of under-served children (Tyack, 1992). Arguing that schools and communities are adversely affected by non-academic problems among students and families, proponents of this view advocate for schools to establish links with families and with community service providers as an essential component of restructuring schools to meet our national educational goals.

In school-linked services, schools do not typically provide the actual health and social services; rather, they work closely with service providers located at the school or a site near the school. Schools, together with families, are among the central participants in planning and governing the collaborative efforts. The idea of school-linked services is not new. As early as 1923, an urban superintendent asserted, "The school should serve as a clearinghouse for children's activities so that all child welfare agencies may be working simultaneously and efficiently, thus creating a child world within the city wherein all children may have a wholesome environment all of the day and every day " (quoted in Tyack, 1992). The goal of linking school and community agencies is for services to become part of a truly integrated system that produces successful outcomes for students. However, Levy and Shepardson (1992) caution that no one model could or should be produced "cookie-cutter" style throughout the country. Instead, each community must develop its own approach, tailored to the unique strengths and needs of its citizens.

In addition to establishing partnerships with service providers, efforts to elicit support from the entire community are increasingly considered essential to meet children's complex educational and social needs. Usdan (1992) points out that demographic changes are rapidly eroding public education's traditional support base. Only about 25 percent of the adults in the United States currently have youngsters enrolled in public schools, which means a decline in citizens who have a "vested interest in the success of education" (p. 19). Reaching out to community partners, including universities, businesses, labor, public and private agencies, churches, and other community agencies, is seen as a way to broaden the support base for education.

For supporters of school-community collaboration, the metaphor of education as a competitive race is giving way to an educational model based on shared responsibility, reciprocity, and inter-relatedness. As Bronfenbrenner (1985) writes, the way to improve education and society is to make schooling more central to family and community, while making family and community more central to schooling. Educators caution, however, that true collaboration, which includes sharing power and resources, will require "overcoming multiple layers of resistance--in attitudes, relationships, and policies--within and across service provider institutions, among consumers, and throughout the community" (Melaville & Blank, 1993, p. 19). Thus, not only "empowerment" but training will be necessary for forming and maintaining successful partnerships.

In addition, even the most successful collaboration will not make up for social under-investment in children; nor will collaboration create jobs that pay a living wage or provide adequate housing and health care for all (Gardner, 1990). Yet collaboration is essential to maximize current as well as future investments in educational and social services and to provide continuity for children and families as they negotiate the educational and social service systems.

ENHANCING CONTINUITY FOR CHILDREN AND FAMILIES

It is generally accepted that the early childhood years lay the foundation for children's success in school and life. From the field of developmental psychology, we have learned that development is continuous and hierarchical; each level involving new elements of behavior which represent the integration and differentiation of former accomplishments (Sroufe, 1979). Thus, effective teaching builds upon a child's prior knowledge and experience. As Bowman and Stott (1994) point out, children's learning is context-bound, tied to specific settings. In order to make sense of their experience, children must see the connections between what they already know and what they experience in school.

Yet, the transition to public school often results in sharp discontinuities. The young child must adapt to a new culture, a new ecology with different sets of procedures, requirements, and values (Caldwell, 1991). Isolated from the educational mainstream as well as from each other, preschools typically engage in little networking with kindergarten programs. The report published by the National Transition Study sponsored by the U.S. Department of Education (Love, Logue, Trudeau & Thayer, 1992), concludes that public schools do not place a high priority on transition activities. Although a high percentage of incoming children and their parents visit the school before the beginning of the kindergarten year, only 10 percent of schools reported systematic communication between kindergarten teachers and previous caregivers.

Housing a preschool onsite is one strategy to ease transitions for children; however, physical proximity by itself does not necessarily lead to open communication. The Southern Regional Education Board (1994) reports that in one site where preschool and kindergarten were located in the same building, the two groups of teachers still had little or no interaction after several years; many did not even know each other by name. Differences in status (teaching versus baby-sitting) and remuneration (child care providers often receive poverty-level wages) may militate against open communication. Caldwell (1991) poses a rhetorical question, "Whoever heard of a kindergarten teacher who valued the opinion of a child care worker enough to ask for one?" (p. 70). Yet an even more important question may be, whoever heard of a child care program which provided release time for its staff to meet with school providers?

If children are to derive optimal benefit from each new educational setting, these "hidden boundaries" and "sacred cows" (Kagan, 1991) must begin to be broken down and teachers and child care providers given opportunities for on-going communication among staff within and between settings.

Continuity in curriculum. Although the benefits of a high-quality, developmentally appropriate preschool environment have been well documented, these benefits can be lost when students enter schools, whose expectations and practices differ markedly from the previous setting. In the National Transition Study mentioned above, only 12 percent of schools had kindergarten curricula designed to build on preschool programs (Love, et al., 1992).

Caldwell (1991) cautioned, however, that continuity alone is not necessarily a good thing. Because of the downward extension of academic instruction into kindergarten and preschool, there is often the most continuity in the most developmentally *inappropriate* programs.

In a study by Mitchell, Seligson, and Marx (1989), some school administrators and teachers had worked to improve continuity for children by making the curriculum for four-year-olds more like that in kindergarten and the kindergarten curriculum more like that in first grade. Thus, one of the most important steps in providing continuity is to ensure that programs at all levels -- preschool, kindergarten, and primary grades -- are developmentally appropriate (SREB, 1994).

Bronfenbrenner (1979) suggests that the developmental potential of a setting is improved when there are supportive linkages between settings; when a child's entry into a new setting is made in the company of one or more persons with whom the child has participated in other settings; when there is open two-way communication between settings which includes the family in the communication network; and when the mode of between-setting communication is personal. *Transitions to School* (1995), a publication focusing on recommended practices designed to facilitate a child's movement into kindergarten and the primary grades, summarizes what is known about successful early childhood transition services, and highlights existing policies and approaches. Effective practices include:

- parent involvement
- preparation of children for the transition
- clear goals and objectives agreed upon by all parties involved
- a shared commitment to the successful transitions of young children
- shared decisionmaking among home, preschool, school, and community representatives
- cultural sensitivity
- specific assignments of roles and responsibilities among all parties, including interagency agreements, and
- specific timelines for transition activities

If schools are to provide optimal continuity and support for children and families, not only should there be increased collaboration between preschools and schools, but both settings must strive to provide the nurturing environment needed to build strong families and competent children. The following story illustrates this concept:

> Lilly Wong Fillmore, a professor at the University of California, Berkeley, and an expert on the education of young bilingual children, describes an annual ceremony of the "foundation center" in California that symbolizes what policies of coordination between preschools and public schools are trying to achieve. Public school teachers and administrators are invited to the graduation of young children from Head Start centers. The children's parents and preschool teachers pass lighted candles to their public school guest, symbolically turning the children over to them. Take care of them the way we have, they are saying (Lewis, 1993, p. 749).

Conclusion

It is clear that if children are to grow to be socially competent adults who "live well, love well, and expect well" (Werner and Smith, 1982), schools must join with parents and service providers to

create a system which reflects what we know about how children learn and develop. As Kagan (1991) asserts, "The care young children receive is inseparable from learning, and learning is inseparable from care." Increased collaboration between preschool providers and the public school system and strong family/school/community partnerships can do much to provide continuity for young children and their families.

CULTURALLY RESPONSIVE TEACHING

> Man is suspended in webs of meaning that he himself has spun. (Geertz, p. 5)

The United States has always been a multicultural society. The current furor over the "immigrant problem" obscures the fact that we are, in large part, a nation of immigrants (both voluntary and involuntary). Demographic data indicate that the U. S. is becoming increasingly diverse, and is, in fact, experiencing one of the most dramatic shifts in its racial and ethnic make-up in history (Holmes, 1996). The first such shift, of course, was set in motion by the arrival of the first European immigrants over ??? years ago. The next major shift occurred when the trade in slaves transformed the racial composition of the South. The third came when waves of immigration from Eastern and Southern Europe in the late 19th and early 20th centuries radically altered the industrialized urban areas of the Northeast and Midwest (Holmes, 1996).

The increasing diversity is particularly evident in our schools; currently, "minority" students represent a majority in all but two of our twenty-five largest cities, and by some estimates, the turn of the century will find up to 40 percent non-white children in American classrooms (Delpit, 1995). But it is only recently that we have begun to recognize the reality of our racial and ethnic diversity. Traditionally, immigrants have been asked to leave their languages and culture at their port of entry and to become part of the "great American melting pot," exemplified by the following story:

> According to legend, Henry Ford periodically staged a ceremony to celebrate "the great American melting pot." In the ceremony, newly arrived immigrant employees, dressed in their ethnic attire, walked behind a large caldron. When they emerged on the other side, dressed in their new company-provided overalls, they symbolically disposed of their ethnic clothing in the caldron.

Schools have reflected this melting pot concept of America. The role of public education has been not only to produce future workers but to socialize students into the existing social, economic, and political ideologies by transmitting knowledge, skills, and social and moral rules of the culture (Kohlberg & Mayer, 1972). We have striven for homogeneity and uniformity in our ideals of community and equality. Gitlin (1995) points out, "The mission of cultural institutions is to pass the heritage on, not trade it away for a mess of multicultural pottage" (p. 486).

The factory model school, with a goal of "using educational technology to 'stamp' a uniform education on all students" (Bowman, 1994) is deeply entrenched in American educational thinking. Tyack and Tobin (1994) point out that schools, like all cultural institutions, "are not ahistorical creations etched in stone" (p. 476); rather, they are culturally constructed: "They are the historical product of particular groups with particular interests and values at particular time -- hence political in origin" (p. 478).

Much of this paper has discussed the tension between the traditional idea of education as a means to socialize children into the existing social, economic, and political ideologies of our culture, and the view espoused by proponents of developmentally appropriate practices: education as nurturing children's intelligence and ability to make sense of their experience. This tension is part of a larger political argument regarding the ideal of America as a melting pot, on the one hand, or, on the other hand, as a pluralistic society, defined by Phillips (1988) as a "place where all racial and cultural groups

share equal access to opportunities for quality lives and to power over their own lives" (p. 43). At the heart of the argument about the means and ends of schooling is the question: What kind of society do we want?

Proponents of multicultural education argue that our efforts to achieve a homogeneous society not only rob many children of their heritage and their identity, but also rob us all of the richness of diversity that makes up our society and the world. As poet Octavio Paz has written:

> What sets worlds in motion is the interplay of differences, their attraction and repulsions. Life is plurality, death is uniformity. By suppressing differences and peculiarities, by eliminating different civilizations and cultures, progress weakens life and favors death. The ideal of a single civilization for everyone, implicit in the cult of progress and technique, impoverishes and mutilates us. Every view of the world that becomes extinct, every culture that disappears, diminishes a possibility of life (1967).

Practical considerations. In addition to the ethical and aesthetic considerations involved in multicultural education, there are very practical and economic issues, as well. Traditionally, children from diverse cultures and ethnic groups who spoke languages other than English have been seen as deficient. Because lack of standard English and the mores of middle-class America were seen as the problem, learning English and middle-class values were considered the solution. Children were "stamped" with a uniform education and were expected to assimilate to the new culture as soon as possible (Bowman, 1994). Many people today see no reason why this method cannot continue. "If it was good enough for my grandfather, it should be good enough for immigrants today," the argument goes. However, it is increasingly recognized that children from minority cultures are at high risk for school failure, often dropping out before graduating from high school. In some urban areas the dropout rate is close to 60 percent for minority students. (Kozol, 1991).

While, during much of this century, a ninth-grade education was "good enough for grandfather" (at least for some grandfathers), our job market is increasingly competitive, requiring high degrees of literacy and critical thinking abilities. Meier (1995) points out the modern public school system was designed with two tracks, one ending long before high school graduation and the other aimed at a small college-bound elite. She reports that until World War II the average American did not graduate from high school, finding unskilled, semi-skilled, and even highly skilled work, with an average of nine years of schooling: "The term drop-out is new -- most kids hadn't dropped in before the 1940s" (p. 69). It is only since the 1960s that schools have been expected to educate all students to equally high standards. Bracey (1993) observes, "A system that formerly satisfied expectations by functioning as a sorting machine is now asked to optimize the learning of all students" (p. 116).

If schools are to create environments that enable children to be themselves, as well as help each child find a "fitting place" in society, the old procedure of requiring children to "leave their culture and language at the schoolhouse door" (Nieto, 1994) must be discarded. It is increasingly understood that the absence of continuity and congruence between the child's home culture and the school, an absence of shared meaning, may interfere with children's competent functioning in the new setting. As Becker (1983) observed, "Kids who test dumb usually look and act dumb in

school. That their dumbness may be the result of deep cultural differences between what they know and feel comfortable doing and what the schools require doesn't alter that" (p. 107).

Thought, Language, And Culture

> The greatest distance between people is not space, but culture (Highwater, 1981, p. 3).

Psychologists have known for a long time that one of the most important elements in learning is meaning. A major theme in DAP is to make learning meaningful for individual children. However, the image of the lone child constructing his or her own world almost in isolation has dominated the thinking of child development theorists and early childhood educators alike. While the recent discovery of the "social" infant has led to increased emphasis on the interpersonal life of the child, less attention has been paid to the importance of the wider social, cultural, and historical context. It is only in the last decade, due in large part to increasing attention to Vygotsky's theoretical framework, that we have begun to understand that "making sense" is a profoundly social process (Bruner, 1987), a process in which culture and individual development are mutually embedded (Bowman & Stott, 1994).

Communicating with our fellow human beings -- developing shared meanings and understandings -- is nearly always challenging, made even more complicated by the task of communicating with people of diverse cultures and languages. Bowers and Flinders (1990, p. 32) utilize the writings of Martin Heidegger to explicate the relationship between thought, language and culture:

> . . . the individual is born (what Heidegger calls "throwness") into an existing social world of existing patterns, relationships, and ways of understanding. Learning the language of the social world involves acquiring this heritage of meaning and patterns for understanding in a manner that becomes part of the individual's natural attitude...The process of learning to think and speak the language that encodes the cultural forms of understanding provides the individual a conceptual framework that serves as a basis for understanding new phenomena. As Heidegger put it, "the language already hides in itself a developed way of conceiving" (1927, p. 199).

Language, then, is not just a tool, a neutral conduit for sending and receiving information; words are not containers into which meaning is put (Bowers & Flinders, 1990). Vygotsky says it well: "The primary word is not a straightforward symbol for a concept but rather an image, or picture, a mental sketch of a concept, a short tale about it -- indeed, a small work of art" (1962, p. 75). Thus, language is a medium through which the individual interprets and understands his or her experience, a way, not just of communicating, but of organizing reality. Because our own cultural patterns and language are seldom part of our conscious awareness and seem quite natural, "just the way things are," we often forget that our taken-for-granted beliefs and values are interpretations which are culturally and historically specific. As Native American author Jameke Highwater notes, "We do not all see the same things (p. 59).

Our traditional American world view is characterized by a belief in change as progress, particularly technological change, a strong emphasis on the "self-reliant, rugged individualist" and a belief that society benefits when, as individuals, we all compete fairly against each other (Spindler, 1990). A corollary of this belief is that the U.S. is an equitable society where rewards are based solely on

one's merits (Nieto, 1994). Education has been conceived of as "the great leveler," (Boorstin, cited in Edgar, 1985), the "process by which, in theory, all individuals, regardless of ethnicity, gender, or social background, can come to enjoy the fruits of American society" (Edgar, p. 65). With a strong emphasis on pure thought, uninfluenced by feeling or culture, and on the decontextualized written word, education has consisted primarily of filling up children's heads with the facts, skills, and knowledge considered necessary for economic and social success.

Because members of the dominant culture seldom have the opportunity to experience other ways of seeing and knowing, other world views are dismissed as illusions (Highwater, 1982) or as deficient, in need of remediation. Highwater notes:

> Whenever the world is understood exclusively in terms of discursive facts, there can be no access to other worlds. The poet Rene Char has said: "For those who are walled up everything is a wall...even an open door." The vistas of all the great windows of walled-up cultures are simply mirrors. We see the world in terms of ourselves (p. 13).

One of the first steps teachers must take in creating a culturally responsive and relevant learning environment (to open the closed doors and windows of walled-up cultures) is to engage in reflective self-analysis, to examine their attitudes toward different ethnic, racial, gender, and social class groups (Banks & Banks, 1995; Delpit, 1995; Phillips, 1988). Banks and Banks (1995) argue that multicultural awareness cannot be a one-time event; it can only be achieved through in-depth work. For both children and teachers, strategies such as writing their life stories, reflecting on their own life journeys, and videotaping classroom interactions and examining them for bias, can help all concerned gain the self-awareness needed to begin a classroom discourse,on the deeply-held, often taken-for-granted beliefs and biases that make up the ecology of the classroom and society.

The multicultural curriculum advocated by many early childhood educators, then, is not merely a "tacos on Tuesday" or "tourist" approach to diversity, one that emphasizes the "exotic" differences between cultures by focusing on holidays, foods, and customs. Derman-Sparks (1992) points out that such an approach tends to ignore the real-life, every-day experiences and problems of other cultures and can lead to stereotyping. Instead, the suggested approach is to view multicultural education as a perspective that is integrated into the daily activities of the classroom. If it begins with teachers' self-reflection, it also includes an examination of the racism and biased attitudes and behaviors that are structured into our society and our schools and an exploration and validation of the many cultures that make up the classroom, our nation and our world.

In short, multicultural education becomes an anti-bias curriculum when it makes explicit the "deep underpinnings of the dominant culture, as well as the deep patterns of others" (Bowers & Flinders, 1990, p. 124). Thus, a multicultural/anti-bias curriculum is thoroughly grounded in issues of equity and social justice. At its heart is the question of how to prepare children to become effective agents for social change (Banks & Banks, 1995). In *Anti-Bias Curriculum: Tools for Empowering Young Children*, Derman-Sparks and the A.B.C. Task Force (1989) delineate the goals of an anti-bias curriculum:

> The practice of freedom is fundamental to anti-bias education. Curriculum goals are to enable every child: to construct a knowledgeable, confident self-identity; to develop comfortable, empathetic, and just interaction with diversity; and to develop

critical thinking and the skills for standing up for oneself and others in the face of injustice (p. ix).

IMPLEMENTING AN ANTI-BIAS CURRICULUM: CREATING A CULTURALLY RESPONSIVE CLASSROOM ENVIRONMENT

> A "common culture" can never be an extension to everyone of what a minority mean and believe. Rather, and crucially, it requires not the stipulation and incorporation within textbooks of lists and concepts that make us all "culturally literate," but the creation of the conditions necessary for all people to participate in the creation and re-creation of meanings and values (Apple, 1992).

A central tenet of DAP is to build on the strengths and experiences that children bring to the classroom. Increasing the continuity and congruence between children's home experiences and the school environment is particularly critical to the success of children from diverse cultures and social classes (Bowman, 1994; Phillips, 1988). Key to this approach is the assumption that diverse languages and ways of understanding and interpreting the world are an asset and a resource, not a liability. In order for children to construct a "knowledgeable, confident, self-identity" (Derman-Sparks, 1989), schools must stop requiring children to "subtract" their language and cultural identity and replace it with the language and culture of the dominant group, a process known as assimilation. Rather, they must acknowledge and build on cultural differences, while at the same time preparing children to live successfully in both worlds. Phillips (1988) writes:

> Remember what happened to E.T. when he got too far from home? He lost power over the world. And so it is with our children when their school settings are so different from home that they represent an alien culture to them. They too lose their power. But unlike E.T., our children cannot simply go home for their homes are embedded in that alien culture. In order to grow and thrive as adults, they need skills to operate in both cultures: one that will provide them power and productivity in mainstream America, and one that provides them a sense of meaning in life, a history, a home (p. 47).

Clearly, "meeting the challenge of diversity,"(Bowman, 1994; Jones & Derman-Sparks, 1992), "helping students create a chance to dream" (Nieto, 1995), and "enabling students to become reflective and active citizens of a democratic society" (Banks & Banks, 1995) are complex and even unsettling tasks, tasks which, in Geertz's (1973) words, you strongly suspect that "you are not quite getting it right." Yet, it is important to remember that DAP already includes many of the perspectives and practices that are essential to a multicultural/anti-bias curriculum. These include an emphasis on meaningful activities, multiple perspectives and intelligences, cooperation, in-depth exploration of a topic through dialogue, investigation, and inquiry, authentic assessment, family/school/community partnerships.

Thus, authentic multicultural activities do not have to be added on to an already busy schedule; instead they become an integral part of the classroom environment. (Jones & Derman-Sparks, 1992). However, it is not enough for classrooms to be "print rich," "literature-based," or "holistic." Willis (1995) points out that school literacy experiences are often tempered through a mainstream, middle-class, European cultural lens" (p. 35). By emphasizing Eurocentric ways of

knowing and learning, the languages, contributions and histories of some groups, such as women, people of color, and the working class, are (often inadvertently) devalued and ignored.

DAP teachers advocate "starting where the child is." However, because 90 percent of teachers are white, all to often the child "in mind" is white, middle-class, and able-bodied. The absence of books and activities that validate the languages and experiences of children from culturally and linguistically diverse backgrounds can have the effect of silencing children who speak and behave "differently." Fortunately, the last few years have brought a proliferation of practical suggestions that teachers can use to build the classroom environment through authentic multicultural activities, nurture diverse languages, dialects, and styles of discourse, and explore responses to diversity, including gender, race, and differently-abled people.

Authentic Multicultural Activities

According to Rosegrant (1992), a teacher in a multilingual kindergarten, the first place to start is with the child's family. In order to create a "culturally safe" classroom, she finds out as much as possible about the families' backgrounds and experiences of all the children, by surveying parents, by reading multiple books on the represented cultures, and by careful observation of children to "see what experiences seem to connect with them." She describes a little girl from Africa who had listened to many African stories before one in particular connected to her experience:

> The story was *Bringing in the Rain to Kapiti Plain*, and in it a shepherd is depicted standing on one leg -- "like a stork." The child brightened immediately and yelled out, "That's how people stand in my country!" Her enthusiasm communicated to me that she feels culturally safe in our classroom (p. 146).

Acknowledging and nurturing the cultural knowledge of cultural and linguistically diverse children can help bridge the gap between home and school. Encouraging children to bring pictures of their families, share favorite stories or songs from home, and asking family members to share aspects of their culture can help children feel secure and valued for who they are (Boutte and McCormick (1992). Parents and other family and community members may be encouraged to visit the school to read or tell stories, share oral traditions, beliefs and values, and knowledge of traditional celebrations, art, music, poetry, and dance (Wolfe, 1992).

In order to legitimize the contributions of all people (Willis, 1995), early childhood classrooms should include pictures, puppets, dolls, foods, and other objects for dramatic play, that represent diverse cultures, as well as people who are differently-abled. Literature from a variety of cultures, lifestyles, and income groups, especially those represented in the classroom, should be an integral part of the classroom environment. Creating a take-home library of children's books in primary languages encourages parents to reinforce the heritage language as well as to read to their children (Rosegrant, 1992). Books which are written in diverse languages and from diverse cultural perspectives, rather than merely translations of English stories, are particularly salient for children from culturally and linguistically diverse backgrounds. Numerous opportunities should be provided to hear and see various languages by labeling materials, making charts, and lists (Derman-Sparks, 1989).

Cultural incongruities between the patterns of communication experienced by children in the home and at school can undermine successful learning (Bowers & Flinders, 1990). While many

classrooms emphasizes individual responsibility and achievement, competition, and teacher controlled learning, other cultural groups, such as Native Americans and Native Alaskans, may be unaccustomed to this style of learning, valuing group work that fosters shared responsibility, instead. A curriculum that emphasizes projects and joint inquiry can help children, who share this cultural value, feel comfortable in the school setting (Philips, 1983).

Projects that involve exploring the local community can help children understand the region they live in and can serve as the basis for integrating skills in math, science, art, history, and language arts (Rowe & Probst, 1995). Rowe and Probst (1995) describe "an adventure in learning" that began when a third grade class in Alaska abandoned its traditional science text and participated in weekly projects and field trips to study their community of the Pribilof Islands. The authors report that the project gave the students opportunities to apply prior knowledge in ways that validated their thinking, to learn what it means to be an Aleut, and to value their heritage.

Activities that connect children's culture with that of the school can help teachers reinterpret and value children's experience outside the classroom, integrating these experiences into the curriculum. In a recent workshop (Nissani, personal communication), teachers in a migrant education program were discussing how difficult it was when Mexican families invariably planned a return to Mexico to visit relatives during the middle of the school year, "just when the students are finally learning to read." Because, when the children return, they frequently have not maintained their literacy skills, and have to "start all over again," some teachers had been trying unsuccessfully to persuade families to postpone their trips home until summer (at the height of the harvest season) or even not go at all.

One teacher, however, reported that her school staff had struggled with this issue but, "since visiting family was a vital part of the Latino culture that was unlikely to change," they had come up with a plan that benefited all concerned. An investment in inexpensive instant cameras for the children to take to Mexico, with instructions to "take pictures of all your relatives and write a story about each one to share with the class" enabled the children to use their literacy skills in a way that connected their families and culture to a meaningful learning experience which enriched the entire class. Some mothers also organized a workshop where they hand-stitched covers for the cameras and taught their skill to other parents.

Drawing on children's background experiences and allowing children to use multiple modes of expression help to foster competence and self-esteem. For linguistically diverse children who may constantly struggle to understand classroom directions, routines, conversations, and to communicate their thoughts in a foreign language, non-verbal means of communication provide alternative ways to participate in and contribute to the classroom community. As Tubbs (1992) points out, "Programs of art and music for young children have tremendous impact on ethnic groups who may, for once, feel accepted by their peers as they paint, dance, play instruments, or play with puppets."

Multilingual Education

> I heard crying in the infants' school as though a child had fallen and the voice came nearer and fell flat upon the air as a small girl came through the door and walked a couple of steps towards us...About her neck a piece of new cord, and from the cord, a board that hung to the shins and cut her as she walked. Chalked on the board, in

> the fist of Mr. Elijah Jonas-Sessions, "I must not speak Welsh in school"...And the board dragged her down, for she was small, and the cord rasped the flesh on her neck, and there were marks upon her shins where the edge of the board had cut (Llewellyn, 1968, cited in Skutnabb-Kangas & Cummins, 1988).

Although children are no longer physically punished for using their heritage language, there are powerful reasons why children feel pressured to speak only English in preschool and school settings. The first and most important is that in most schools, English is the only language spoken. However, even when bilingual teachers are present, many teachers and even parents believe that the sooner children learn English, the more successful they will be in school. Teachers may strongly encourage and even require the use of English in the classroom; children may also be discouraged from speaking in their heritage language with peers and even with parents. In addition, because children want to be accepted, children, themselves, are strongly motivated to learn the "high status language, the societal language -- English" (Wong-Fillmore, 1991).

There is widespread agreement among researchers, however, that bilingual education is the most effective and pedagogically sound way of providing early childhood education for the many language-minority students in the nation's schools (Skutnabb-Kangas & Cummins, 1988; Wolfe, 1992; Wong-Fillmore, 1991). According to Wolfe (1992), "effective bilingual programs instruct children in all of the academic subjects in their primary languages while they are developing proficiency in English" (p. 139).

Researchers based their position on the following premises:

- During the first five years, children are learning their primary language at a rapid pace. Because language and thought are interdependent, a firm command of the native language is vital for conceptual development (Cummins, 1989; Wolfe, 1992; Wong-Fillmore, 1991).
- Children under the age of five have not reached a stable enough command of their native language not to be affected by the emersion in English-only classrooms that they typically encounter (Wong-Fillmore, 1991). Thus, acquisition of English as a second language by young children may result, not in bilingualism, but in the erosion or loss of their primary language, dubbed "subtractive bilingualism" by Lambert (cited in Wong Fillmore, 1991).
- Conversely, when children are able to learn their primary language, with all its richness and complexity, they are able to transfer these skills to a new language (Wolfe, 1992).
- Contrary to popular belief, young children develop proficiency -- which is not the same as fluency -- in a second language slowly, over a five to seven year period (Wolfe, 1992). Young children who are forced to give up their primary language and adjust to an English-only environment may not only lose their first language, but may not learn the second language well (Wong-Fillmore, 1991).
- When children have only a partial command of two languages, they may mix both languages in what Selenker (1972) called "fossilized versions of inter-languages," rather than fully formed versions of the target languages (Wong-Fillmore, 1991). This inability to speak any language with proficiency puts children at high risk for school failure.

- The loss of the heritage language can seriously jeopardize children's relationship with their families, who may not be fluent in English. The inability to communicate with family members has serious consequences for the emotional, social, and cognitive development of linguistically diverse children (Cummins, 1989; Wolfe, 1992; Wong-Fillmore, 1991).

Children's first encounters with schools, then, may result, not in the acquisition of tools that enable them to be successful in two cultures; instead, they may lose the skills, competencies, and even the identities they bring from their home culture. They may not be fully accepted by the new culture; yet the road back to their own culture is blocked (Skutnabb-Kangas & Cummins, 1988). How can educators ensure that children's ability to use language to communicate, to interpret their experience, and to organize their reality is enhanced, rather than diminished in our nation's schools?

Creating a classroom environment that values and accepts children's home culture and language, using strategies, such as those outlined above, is the first step in helping children feel proud, not ashamed, of their "mother tongues, their origins, their group, and their culture" (Skutnabb-Kangas & Cummins, 1988). Bilingual education, in which children are encouraged to use their first languages, while supporting their acquisition of English, is optimal; however, due to lack of qualified minority-language speakers and the challenges of meeting the needs of children in a multilingual classroom, this approach is often impractical. Collaboration with parents and linguistically diverse members of the community is an effective way to provide opportunities for children to maintain their own language and to validate its importance. Parents can be encouraged to converse with and tell and read stories to their children in their native language, at home and at school. Developing strong family/school partnerships is essential to providing cultural continuity for children (Wolfe, 1992).

In addition, by understanding the way children learn a first language, teachers can apply these principles to help children learn English. While, until recently, English-as-a-Second-Language (ESL) methods of teaching had a strong behavioristic, skills orientation, current practices emphasize a whole language approach. ESL literature identifies attainment of communicative competence as the goal of instruction (Abramson, Seda & Johnson, 1990). With the recognition that language is best learned through actual use in a non-threatening social context, language use is encouraged by focusing on meaning rather than correctness of form, regarding errors as part of the learning process (Abramson, Seda & Johnson, 1990). Like young children learning a first language, when children's communicative attempts are directly corrected, they may learn that it is better not to speak at all. Modeling the correct form and encouraging further communication, help children gain proficiency, without damaging their self-esteem.

Contextual cues, such as gestures, actions, pictures, manipulatives, and other hands-on, real objects can help children connect words with meaning. As Okagaki and Sternberg (1994) point out, for children with limited English skills, following teachers' directions and even "figuring out what to do to stay minimally out of trouble is an enormous task" (p. 18). While Anglo teachers typically value the decontextualized "text" over the context, Delpit (1995) observes that other groups, such as Native Alaskans, Native Americans and African-Americans, place a far greater value on context. In a classroom setting, while an Anglo teacher frequently directs children to do something while he or she is engaged in a different task, other cultural groups typically match words with actions.

For example, if a Native American teacher says, "Copy the words," she is at the blackboard pointing. Delpit (1995) points out, "The Anglo teacher asks the children to attend to what he *says*, not what he does, the Native American teacher, on the other hand, supports her words in a related physical context. What gets *done* is at least as important as what gets said" (p. 98). To help linguistically diverse children feel secure and competent in the classroom setting, as well as to promote English proficiency, teachers should learn to provide as many cues as possible to aid understanding.

Twenty years of research into the micro-politics of classroom conversations brought (among other contributions) a very practical suggestion by Rowe (Cited in Bowers & Flinders, 1991). Rowe found that providing ample time for children to answer questions can increase the number and quality of responses for all children. Increasing the "wait time" from the usual one second or less to three or more seconds can provide needed time for children not only to reflect on their answers but to their words in a second language. Finally, providing bilingual signs around the classroom, learning as many words as possible in children's primary languages, and encouraging children to teach the class a few words in their language, can convey that diverse languages are valued.

Styles of discourse and literacy. Although bilingual and bicultural children have the potential to enrich the classroom environment with diverse ways of seeing and understanding, their discourse and literacy styles are often seen as a liability. Cummins (1983) cited the observations of a child who came to Canada from Hong Kong: "English style is very different from my style. English people do not like sentences to go around and around and the idea must be clear, but in our tradition, we tend to go around and around, and then at last the focus becomes narrower and narrower" (p. 36). It is likely that many teachers might see this narrative style as inferior to the topic-centered, linear style favored in Anglo classrooms and attempt to "fix" the problem by requiring the culturally favored approach.

Research by Michaels and Collins (cited in Bowers & Flinders, 1991) in an urban first-grade classroom provide an example of the taken-for-granted beliefs that may lead teachers to misinterpret the performance of culturally diverse students. During sharing time, white students followed and were reinforced for the expected pattern of storytelling: "a topic-centered, focused, explicit description of single events with a linear pattern of development' (p. 17). The African American students, however, used a pattern of presentation that used anecdotal associations and paralinguistic cues that were not understood by the teacher.

This style "made it difficult for the teacher to understand what the students were saying, as their accounts did not seem to have beginnings, middle, or ends" (p. 17). Because the teacher did not understand the topic-associating style, she would attempt to get the students to state the topic and to connect information together in an explicit and linear manner. Although she eventually instituted a guideline that stated that "sharing would involve telling about only 'one thing,'" (p. 18), all her attempts were both disruptive to the students' presentations and ineffective in helping the African American students to understand what she wanted.

An example cited by Delpit (1995) has a similar beginning but a happier ending. She cites the work of a teacher-researcher in Wyoming who was concerned that many of the stories that her Arapaho students wrote "didn't seem to 'go anywhere.'" The teacher wrote:

> The stories just ambled along with no definite start or finish, no climaxes or conclusions. I decided to ask Pius Moss (the school elder) about these stories, since he is a master Arapaho storyteller himself. I learned about a distinctive difference between Arapaho stories and stories I was accustomed to hearing, reading, and telling. Pius Moss explained that Arapaho stories are not written down, they're told in what we might call serial form, continued night after night. a "good" story is one that lasts several nights.
>
> When I asked Pius Moss why Arapaho stories never seem to have an "ending," he answered that there is no ending to life, and stories are about Arapaho life, so there is no need for conclusion. My colleagues and I talked about what Pius had said, and we decided that we would encourage our students to choose whichever type of story they wished to write: we would try to listen and read in appropriate ways (p. 62).

Utilizing the expertise of teachers, parents, and other community members of diverse cultural and linguistic groups can do much to counter the deeply held and often unconscious biases that guide our behavior and that may cause us to value only one way of talking, understanding, and behaving. Children and teachers of the dominant culture can learn from children from diverse cultures, enhancing their own lives and their ability to "become citizens of the global community" (Delpit, 1995, p. 69).

Dialect. Teachers often insist on remediating the dialect of African American, Native American, and Alaskan American students. Many researchers and educators, however, contend that constant correction can have a damaging effect on children's self-esteem, attitude toward school, and ability and motivation to learn to read and speak standard English (Delpit, 1995; Cummins, 1988). When teachers model respect and acceptance of children for who they are, children are much more likely to identify with teachers as role models and want to emulate their styles of speech and behavior. Delpit (1995) provides this example from a Mississippi preschool, where a teacher had been "drilling her three-and four-year-old students on responding to the greeting, 'Good morning, how are you?' with 'I'm fine, thank you.' Posting herself near the door one morning, she greeted a four-year-old black boy in an interchange that went something like this:"

Teacher:	Good morning, Tony, how are you?
Tony:	I be's fine.
Teacher:	Tony, I said, How are you?
Tony:	(with raised voice) I be's *fine*.
Teacher:	No, Tony, I said *how are you?*
Tony:	(angrily) I done told you, *I be's fine* and I ain't telling you no more! (p. 51)

Delpit (1995) points out that it is unlikely that Tony will want to identify with this teacher, who is as unpleasant as she is inscrutable. Yet children like Tony may experience many such invalidating and confusing attempts to make them conform to standard English, both in literacy instruction and everyday conversation. Delpit (1995) sites a reading instruction exercise used by a professor to demonstrate the devastating effects on students of the constant correction of their communication

styles. Having observed a number of such teaching routines, he incorporated the teacher behaviors into a reading instruction exercise that he used with students in a college class. He "put together sundry rules from a number of American social and regional dialects to create what he called the language of Atlantis. When they made errors he interrupted them, using some of the same statements' comments he had heard elementary school teachers routinely make to their students" (p. 60). The results were "rather shocking."

> By the time these Ph.D. candidates in English or linguistics had read 10-20 words, I could make them sound totally illiterate. By using the routines that teachers use of dialectically different students, I could produce all of the behaviors we observe in children who do not learn to read successfully. The first thing that goes is sentence intonation: They sound like they are reading a list from the telephone book. Comment on their pronunciation a bit more, and they begin to sub-vocalize, rehearsing pronunciations for themselves before they dare to say them out loud . . . They begin to guess at pronunciations . . . They switch letters around for no reason. They stumble, they repeat. In short, when I attack them for their failure to conform to my demands for Atlantis English pronunciations, they sound very much like the worst of the second graders in any of the classrooms I have observed (p. 60).

Clearly, as this exercise shows, constant correction is an ineffective and damaging way to help children learn standard English. But don't children need to learn the language and discourse styles of the dominant culture in order to be successful? Effective educators of cultural diverse children propose, that, like linguistically diverse children who must maintain and enrich their primary language in order to become bilingual, children who use different dialects and have different styles of discourse and literacy should add new patterns, while their cultural style is supported and validated (Cummins, 1989; Delpit, 1995; Ladson-Billings, 1995). Key to this approach is the premise that children's own culture should be utilized as a vehicle for learning (Ladson-Billings, 1995).

Strategies that work. Helping children to become aware of the speech patterns of various cultural groups, comparing and contrasting styles, is an effective way to expose children to alternative forms and to provide opportunities to practice them in a non-threatening environment. In addition, all children are helped to realize the value and fun of knowing different ways to talk (Boutte & McCormick, 1992). Follow-ing are some strategies that have been identified by two well-known African American educators, Lisa Delpit and Gloria Ladson-Billings:

- In the sixth-grade classroom of Ann Lewis, students were permitted to express themselves in language (in speaking and writing) with which they are knowledgeable and comfortable. "They were then required to "translate" to the standard form. By the end of the year, the students were not only facile at this "code-switching," but could better use both languages" (Ladson-Billings, 1995, p. 161).

- For younger children, discussions about the differences in the ways television characters from different cultural groups speak can provide a starting point. A collection of the many children's books written in the dialects of various cultural groups and audio taped stories narrated by individuals from different cultures provide authentic ways to learn about linguistic diversity (Delpit, 1995, p. 54).

- Mrs. Pat, a teacher chronicled by Shirley Brice Heath, had her students become language "detectives," interviewing a variety of individuals and listening to the radio and television to discover the differences and similarities in the ways people talked Delpit, 1995, p. 54).

- Native Alaskan teacher Martha Demientieff helps her students understand "book language" by contrasting the "wordy," academic way of speaking and writing with the metaphoric style of their heritage language, where they say a great deal with a few words. Students work individually, in pairs, or in groups to write papers with enough words "to sound like a book." They then take these papers and try to reduce the meaning to a few sentences. Finally, students further reduce the meaning to a "saying" brief enough to go on the front of a T-shirt, and the sayings are put on little paper tee shirts that the students cut out and hang throughout the room (Delpit, 1995, p. 62).

- Demientieff also analyzes her students' writings for what has been referred to as Village English and fills half a bulletin board with these words, labeling it, "Our Heritage Language." On the other half of the bulletin board she puts an equivalent statement under the label, "Formal English." She and the students spend a long time on the "Heritage English," savoring the nuances and discussing how good it feels.

  Then, she turns to the other side of the board and explains that there are people who will judge them by the way they talk or write, and that in order to get jobs, they will need to talk like "those people who only know and can only really listen to one way." She affirms that although they will have to learn two ways of talking, they will always know their Heritage English is best. She compares Formal English to a formal dinner and Heritage English to a picnic. The students then prepare a formal dinner in the class; they dress up, use fancy tablecloths, china, and silverware, and speak only formal English. Then they prepare a picnic where only informal English is allowed (Delpit, p. 41).

- Teachers who do not share the culture and languages of their students can ask students to "teach" the teacher and other students aspects of their language. They can "translate" songs, poems, and stories into their own dialect or into "book language" and compare the differences across the cultural groups represented in the classroom (Delpit, 1995, p. 54).

All of these strategies affirm children's culture and language, at the same time children are helped to learn the skills to operate in the dominant society. These activities also help children to see the arbitrariness of the rules that determine how we speak and write. As MIT Professor of Linguistics Noam Chomsky says, " what differentiates a language and a dialect is who has the army and the navy" (Delpit, cited in Levine, et al., 1995).

Over 40 years ago, George Orwell (1956) argued that the whole tendency of modern English prose is away from concreteness and that this trend is part of a decline in clarity of thought. He charged that modern writing at its worst "does not consist of picking out words for the sake of their meaning and inventing images in order to make the meaning clearer. It consists in gumming together long strips of words which have already been set in order by someone else, and making the

results presentable by sheer humbug" (p. 361). He contrasted the eloquence of a well-known verse from Ecclesiastes with an imaginary rendition in modern English.

> I returned and saw under the sun, that the race is not to the swift, not the battle to the strong, neither yet bread to the wise, nor yet riches to men of understanding, nor yet favor to men of skill; but time and chance happeneth to them all.

The same verse in modern English:

> Objective considerations of contemporary phenomena compels the conclusion that success or failure in competitive activities exhibits no tendency to be commensurate with innate capacity, but that a considerable element of the unpredictable must invariably be taken into account (p. 360).

As this example demonstrates, although edited English is typically held up as the standard, against which other forms of English are judged inferior, exposure to the rich metaphorical, poetic, and often lyrical languages and styles of other cultures might do much to enhance the linguistic repertoire of all Americans.

Response To Diversity

Children of color. Many early childhood teachers pride themselves on their "colorblind" philosophy: "A child is a child," "I don't see color, I see only children" (Delpit, 1995; Derman - Sparks, 1989). Delpit (1995) asks:

> What message does this send? That there is something wrong with being black or brown, that it should not be noticed? I would like to suggest that if one does not see color, then one does not really see children. Children made "invisible" in this manner become hard-pressed to see themselves worthy of notice (p. 177).

Proponents of an anti-bias multicultural curriculum propose that it is not differences that are the problem, but how people respond to difference (Derman-Sparks, 1989; Phillips, 1988). Unlike in Rogers and Hammerstein's song regarding prejudice, "They've Got to Be Carefully Taught," children pick up the prevailing biases of their parents and the community quite young and with no explicit lessons. By the time children are two or three, they begin to notice not only differences, but they may begin to exhibit signs of "pre-prejudice," or discomfort with physical differences. By positively acknowledging young children's skin color and other physical attributes, teachers contribute to children's development of a positive sense of identity (Derman-Sparks, 1989; Boutte, La Point & Davis, 1993).

In contrast, color-blindness, although often a well-meaning response to diversity, may instead become color denial. Because, as Highwater observes, "We see the world in terms of ourselves" (p. 13), treating all children the "same" may translate into treating everyone as white -- denying both children's unique identity and the reality of racism which remains a powerful force in our society (Derman-Sparks, 1989; Phillips, 1988). Because children from diverse cultures have been exposed to negative imagery, stereotypes, and a sense of invisibility in school and in the larger society, schools should carefully create an environment that ensures that all children see people from their culture reflected

positively in the instructional materials, pictures, books, and videos used in the classroom and throughout the school (Boutte & McCormick, 1992).

Even teachers implementing a multicultural curriculum may be reluctant to challenge racist behavior, such as ethnic joke telling, preferring to ignore such behavior as insignificant or harmless (Boutte, LaPoint & Davis, 1993). In addition, rather than discussing racism in our society, many teachers prefer to emphasize the positive similarities and differences among cultures (Boutte, La Point, Davis, 1993; Nieto, 1994). Reasons for avoiding such discussions include discomfort and fear of "saying the wrong thing" and worries that acknowledging racism would, as one teacher put it, "demoralize the students, they need to feel positive and optimistic -- like they have a chance. Racism is just an excuse not to try harder" (Fine, cited in Nieto, 1994, p. 403).

However, examining and exposing prejudice and bias, beginning with in-depth self-reflection, is an important first step in helping children to become aware of their own biases and taken-for-granted beliefs. A first grade teacher who, with his students, engages in studies of cultures and group discussions of differences and similarities, explains, "Biases are brought out to share and discuss. You can really discover where kids are coming from and help them appreciate other points of view" (Novick, 1996). Older children can continue to explore and generate multiple solutions and perspectives, examining the cultural norms, values, mores, and institutions that foster and maintain inequality (Banks & Banks, (1995; Ladson-Billings, 1995). Ladson-Billings (1995) asks, "If school is about preparing students for active citizenship, what better citizenship tool than the ability to critically analyze the society?" (p. 162).

Themes that connect children to the "real world" can have a lasting effect on children's understanding of diversity and prejudice. (Novick, 1996) writes of a Billings, Montana school who tied a project on prejudice to the arrival of the Anne Frank exhibit. Jewish people were invited to talk about the Holocaust and older elementary students read books and watched movies on the subject. That same year, when a local synagogue was vandalized, the community united in fighting prejudice. With the help of the local newspaper, the school hung a sheet at the entrance of the school, with all the children's handprints on it, in honor or multicultural diversity and solidarity.

The film "Not in Our Town" documents a similar incident, also in Billings, when a group of skinheads threw a bottle through the glass door of a Jewish family and a few days later, put a brick through a window of another Jewish household. A five-year-old boy was in the room at the time. In response, Billings rallied behind the Jewish community. The Billings Gazette printed a full-page drawing of a menorah, and people all over town pasted them in their windows. The town held their biggest Martin Luther King Day that year. "And the skinheads fled."

Helping children stand up for themselves and others in the face of injustice (Derman- Sparks, 1989) is vital, not only for individual fulfillment, but for the future of our democratic society. A multicultural anti-bias curriculum, rather than serving to divide peoples from one another, as some critics charge, has the potential to "unite an already deeply divided society" (Banks & Banks, 1995).

Gender stereotyping.

> Three-year old Joanna climbed excitedly onto Santa's knee. "So what would you like?" asked Santa, " A pretty dress like your mama or a dolly?" "No," replied Joanna emphatically. "I want a dump truck that grinds up rocks."
>
> A preschool teacher is conducting a play assessment. Ruby, almost four, has been creating and attending a tea party for herself and several dolls for more than ten minutes. The table is elaborately set, a-la Martha Stewart, with a tablecloth, napkins, flowers, and all china and utensils in place. Ruby and the dolls are happily sipping tea and daintily eating pretend cakes. When the teacher attempts to engage her in block play, showing her how to build a complex tower, Ruby politely obliges her teacher by copying the model, quickly and efficiently. She then solemnly gives back the blocks to her teacher and returns to her guests.

Scientists are still unsure how much of our behavior is biologically predisposed by our gender, but it is clear that, as the above vignettes (both observed by the author) show, we are capable of a wide range of behavior. Although there is new evidence that sex hormones strongly affect the fetus (Hagan, 1996), the human brain is also profoundly shaped by life experience, particularly the experiences of the first few years of life. Derman-Sparks and the A.B.C. Task Force (1989) argue that by four years old, preschoolers "are strongly influenced by societal norms for gender behavior and accept that girls and boys are supposed to do different things" (p. 50).

Research has shown that narrowly defined gender roles can restrict the range of acceptable behaviors, creating stress and limiting possibilities. In her longitudinal study of a multiracial cohort on the Hawaiian island of Kauai, Werner (1992) found that one of the characteristics of resilient children in middle childhood was demonstration of a "healthy androgyny." Similarly, Reinisch reported that in psychological tests, "Boys and girls who score high in both masculine and feminine traits are the ones most likely to be successful, creative and happy in life" (Hagan, 1996). How can teachers create an environment that encourages all children to broaden the range of behaviors they engage in and expand their definitions of what it means to be a boy or girl?

One of the first steps should be avoiding stereotypes. For example, in many elementary classrooms, one might hear, "Boys don't cry," Boys, be quiet," and "You'll have to go sit with the girls if you don't behave" (Bowers & Flinders, 1990). But, unlike the Santa in the above story, teachers should be conscious of gender stereotyping and be vigilant in their classrooms, both avoiding gender biases themselves and helping children expand awareness of gender roles. Group discussions, videotaping and examining classroom interactions, reading books that contradict gender stereotypes, and displaying pictures that portray men and women doing the same kinds of work in and out of the home are a few of the many strategies that teachers can implement. But how does a teacher convince Ruby to play with the blocks and Isiah to play in the housekeeping area?

Derman-Sparks (1989) suggests that if careful observation of children reveals a pattern of gender stereotypical roles, physically reorganizing areas of the environment can encourage cross-gender play choices. Some of her suggestions for early childhood programs include:

- Expand the dramatic play area to include props for building and occupations, such as a hospital or gas station. Place the blocks next to the dramatic play area for building the work places.

- Have an everybody plays with blocks day and a "girls only" block day, supporting children who need help and explaining that it is important for girls to play with blocks because "it helps children's minds get smart" (p. 52).

- Have a "boys only" art time or sewing activity.

She cautions, however, that the goal is to expand children's play options, "not to mechanically insist that every child do exactly the same kinds of activities for exactly the same length of time"(p. 52). Ruby, unlike Joanna, may never dream of a "dump truck that grinds up rocks."

CHILDREN WITH DISABILITIES

It has been over two decades since Congress passed the landmark legislation that required states to provide full educational opportunities to all children with disabilities. The Education of All Handicapped Children Act (P.L.94-142) requires that a free and appropriate education and related services to be provided in the least restrictive environment (LRE) and that an individualized plan (the IEP) be written for each student (Shanker, 1995). At the time the law was enacted, Congress found that one million children and youth with disabilities were receiving no education at all. In addition, they found that nearly half of the nation's children and youth with disabilities were not receiving an appropriate education that provided educational benefits to the child (Turnbull & Turnbull, 1990).

Since the passage of this law, the trend has been toward increasing inclusion of children with disabilities of all ages into the regular classroom and school. In 1986, P.L. 99-457 extended the provisions to children ages 3-6 and created a discretionary early intervention program for children 2 and younger (Shanker, 1995). The recent passage of the Americans with Disabilities Act (ADA) and the Individuals with Disabilities Education Act, further encouraged the full inclusion of children with disabilities. Based on annual data reported by the states to the Department of Education, the percentage of all students with disabilities (ages 6-21) who were receiving educational services in regular classrooms rose from 28.88 percent during the 1987-88 school year to 39. 81 percent during the 1992-93 school year (Roach, 1995).

These figures tell us little, however, about the quality of the inclusion experience. Ferguson (1995) argues that the inclusion initiative has "generated a wide range of outcome -- some exciting and productive, others problematic and unsatisfying" (p. 283). Derman-Sparks (1989) points out that "contact by itself does not necessarily reduce non-disabled children's misconceptions or fears -- it may even intensify them -- unless adults take active steps to promote children's learning about each other" (p. 40). Often placed in classrooms of teachers with inadequate training and support, children may spend a lot of time in a regular classroom, without achieving a sense of belonging. Facilitating "group membership" is seen by proponents of inclusion (Ferguson, 1995; Roach, 1995; Schnorr, 1990) as the most important dimension of inclusion. Ferguson (1995) identifies inclusion as:

> . . . a process of meshing general and special education reform initiatives and strategies in order to achieve a unified system of public education that incorporates all children and youths as active, fully participating members of the school community; that views diversity as the norm; and that ensures a high-quality education for each student by providing meaningful curriculum, effective teaching, and necessary supports for each student (p. 286).

Clearly, adequate support and training are essential for the successful inclusion of children with disabilities in the regular classroom. Training should address not only the necessary strategies to help children with disabilities meet academic goals, but also the attitudes and strategies to help teachers and students view children with disabilities as members of the classroom community.

Response to disability. Children's affective responses toward other people have been shown to reflect a global preference for those who are "like me" (Seligman, Miller & Whiteworth, 1986).

The results of a study by Diamond (1994) suggest that preschool children are sensitive to cues associated with disability, rating peers with disabilities as less competent on developmental tasks than their peers without disabilities. Although in this study (Diamond,1994), there were no significant differences in children's ratings of peers with and without disabilities on items of peer acceptance, there is considerable research evidence that preschool children with disabilities are often isolated and rarely chosen as playmates by peers without disabilities (Guarlnick, 1990; Odom & McAvoy, 1988). Typically developing children (dubbed "temporarily abled" by some "differently abled" people) at a very young age, often decide that children with disabilities are sufficiently not "like me" to make their social acceptance problematic.

Harold Garfunkel (1967, cited in Goode, 1992) argues that it is the social organization surrounding people that gives them their identity and defines for them their participation and competence. Although there is, of course, a physical reality to disability, disability is in many ways, socially constructed. Traditionally, people with disabilities have experienced stigma, defined by Goffman (1963) as, not merely a difference, but a characteristic that deeply discredits a person's moral character. Yet, there are many instances in which non-disabled people form caring and accepting relationships with people with multiple disabilities, including severe and profound mental retardation (Bogdan & Taylor, 1992). Bogdan & Taylor (1992) define an accepting relationship as:

> One between a person with a deviant attribute -- for our interests, a severe and obvious disability -- and another person that is long-standing and characterized by closeness and affection. In the relationship, the deviant attribute, the disability, does not have a stigmatizing or morally discrediting character. The humanness of the person with the disability is maintained. These relationships are based, not on a denial of the difference, but rather on the absence of impugning the other's moral character because of it (p. 278).

How can teachers create an environment that fosters acceptance of diversity and that encourages friendships among all children, based on reciprocity and mutual respect? One of the first steps is for teachers to examine their own biases regarding people with disabilities. Froschl, Colon, Rubin & Sprung (cited in Derman-Sparks) write: "Most non-disabled people have been socialized not to think about disability unless it directly affects them or a close family member...(and) have to some degree internalized society's myths and stereotyped attitudes toward people with disabilities" (p. 40). A person with a disability may be "objectified," that is, they may be seen only as the disability rather than as a whole person (Derman-Sparks, 1989).

Goode (1992) describes a 50-year-old man with Down Syndrome (Bobby), whose clinical file consisted of a "list of faults, pathological behavior, and hopelessness" (p. 207). Nothing was mentioned about a person with interests, skills, and friendships, or the fact that his friends saw him as a person "who talked just fine, as well as you or I" (p. 205). Based on this clinical description, Goode and his research colleagues originally saw Bobby as a person with few competencies; in particular, they thought of Bobby's utterances as nonsensical and largely ignored them. It was only when they took off their "clinical blinders" (p. 206) that they were able to see the "competent" Bobby, a person who, despite "an unusual continence and different ways of thinking and evaluating," (p. 211), was a person, who, "like ourselves, was trying to explore and master his everyday world" (p. 211).

Taking off our "clinical blinders" and helping children to do so requires adopting a philosophy of inclusion that includes supporting children in their learning and a firm belief that all children can

learn (Roach, 1995). Creating an inclusive classroom involves shaping an environment that provides equal opportunities for all children to participate in the classroom community.

Tales of two children. Although a fundamental goal of inclusive education is to enhance social skills of children with disabilities and to provide opportunities for non-disabled students and students with disabilities to develop social relationships, this goal is often thwarted by the ways that the school experiences of children with disabilities are structured. In "*Peter? He Comes and Goes..*" Schnorr (1990) describes a study on part-time mainstreaming and how it was understood by a class of first grade students. Seven-year-old Peter was assigned to a self-contained special education classroom and joined a first grade class for a period each morning as well as for a daily "special," such as art, music, physical education.

Through participant observation and in-depth interviews with first graders, Schnorr sought to learn from student perspectives how they define their school experience, with whom they are likely to make friends, and how they define class membership. The findings revealed that "part-time is different, not just less" (p. 238). First graders used two factors to define class membership: (a) where you belong -- the teacher and class to whom a student was assigned and (b) what you do -- shared daily experiences, including common schedules, rules, rewards, and activities.

Although children reported a number of differences about Peter, many of the differences had nothing to do with Peter's individual characteristics, but related instead to "where he went," and the amount of time he spent in first grade or other places. Peter spent most of his time in "Room 10," he had no locker near the first grade classroom, and he was not on the various reward charts in the classroom, receiving stickers instead. Schnorr observes:

> How could these first graders think about Peter, someone who has no grade, no teacher to speak of, someone who is not eligible for happy-gram and homework rewards, but instead gets his own stickers? It was obvious that he didn't fit what they knew about first grade based on the "where you belong" test (p. 236).

Peter's special education teacher reported that his goals in the mainstream situation were "all social." Yet, Peter's special bus left before the students' free period, a time when children got to play with one another and celebrated birthdays and holidays. This scheduling offered few opportunities for Peter to develop and sustain relationships, effectively "leaving him outside of the class social networks" (p. 238). Thus, a third theme that first graders used to define their school experience, "with whom you play," added to their perception of Peter as an outsider, who "comes and goes." In addition, because most learning activities centered around papers and books, "creating a narrow view of first grade work" (p. 238), Peter, who often colored during these structured activities, was seen as someone who "played" while other students "worked:" "He didn't do work (papers and books), he didn't play when they played (he was not around for free time or recess), he didn't stay for all of specials, he didn't come to parties or work on class projects " (p. 237).

Schnorr suggests that a broader definition of "work," including providing activities that are developmentally appropriate, (e.g., projects, themes, hands-on materials, cooperative groups) may benefit all students and may facilitate planning for a wider range of student abilities and learning styles. Scheduling activities that offer opportunities for children of all abilities to interact socially may lead to increased friendships and a "sense of belonging" for children with disabilities. In

addition, Schorr points out that how teachers feel is reflected by students. Peter's teacher viewed Peter as a "visitor who was not part of her teaching responsibilities" (p. 239). He concludes that helping classroom teachers have more ownership and responsibility for students with disabilities might do much to facilitate a more inclusive attitude on the part of students.

All of these strategies were used in a Georgia classroom, where full inclusion was utilized as a "powerful, effective instructional practice" (Logan, Diaz, Piperno, Rankin, MacFarland & Bargamian, 1995, p. 42). With the part time support of a special education instructor, who co-taught with the regular classroom teacher and the teaching assistant, and with support from classmates through cooperative learning activities, peer tutoring, and buddy programs, a little girl with multiple physical disabilities and moderate intellectual disability (Katie) became an important part of the classroom community, "enriching the lives of the children and their families" (p. 43).

With many of her educational goals integrated across the curriculum, not only did Katie learn more than she had when she was in a special education class, but all children developed empathy and compassion and became advocates for their friend with disabilities, "reaching out to the community, the state, and the nation" (p.42). For example, a focus question on the unit "Changing our Community" became "How can I make a change in my country and help other children like Katie?" (p. 43). Additional experiences with a local newspaper, who interviewed students about their experiences with Katie, changed the focus to "How do words influence how people see things?" and later, "How can we help our community know that words can hurt?" (p. 43). The authors identified two factors that they found to be critical to the effectiveness of the district's inclusion efforts: (a) effective collaboration among classroom teachers and the special education staff, and (b) a weekly block of instructional planning time (p. 44).

Additional strategies. Derman-Sparks' Anti-Bias Curriculum (1989) offers a number of practical suggestions for building an inclusive classroom environment, including:

- Make sure that spatial organization, materials, and activities enable all children to participate actively.
- Actively introduce ways for disabled and non-disabled children to interact and learn from each other.
- Introduce a variety of disabilities through pictures, books, and dolls.
- Provide supervised times for children to explore adaptive equipment and devices used by people with disabilities.
- Invite differently abled people with varying disabilities to talk about their work, talents, and home life.
- Provide experiences that enable children to learn about specific disabilities.
- Counter misconceptions and stereotyping.
- Research environmental adaptations and promote accessibility in your community.

Just as discussions about and activities that address race, gender, ethnicity, and culture are essential to explore multiple perspectives and examine biases, discussions and activities, such as those mentioned above, are crucial for children to develop the knowledge and understanding necessary to

create an inclusive classroom and larger community. Methods and materials that promote active, experiential, inquiry-based, cooperative learning activities lend themselves to accommodating a wide range of abilities and interests (Schnorr, 1990). Multiage grouping may be particularly beneficial for children with disabilities, as competition is typically reduced in such diverse groupings and even children who are far from the "standard" can participate in and contribute to meaningful learning activities. In addition to providing opportunities for children with disabilities to find a fitting place, such activities help all children to see children with disabilities as people, "like ourselves."

For these reasons, linking inclusion with school reform efforts that emphasize developmentally appropriate practices and culturally responsive teaching is a strategy that is advocated by many proponents of full inclusion (Ferguson, 1995; Logan, et al., 1995; Sapon-Shevin, 1995). Although educators debate the pros and cons of inclusion, particularly in light of reduced funding and resources for many public schools, the goal of enabling all children to be full members of the community is one that many educators view as worth fighting for. Sapon-Shevin (1995) writes:

> Certainly, the goal isn't going to go away: the idea that we want to create a world in which all children are welcome, in which all children grow up comfortable with, knowledgeable about, and supportive of, all kinds of other children. Inclusion is consistent with multicultural education, with wanting to create a world in which many more people have opportunities to know, play, and work with one another (p. 11).

Conclusion

> Do not ever underestimate your power as an educator: your power to make all of your students feel included, and perhaps, most importantly, your power to plant hope (Wu, 1992).

Developmentally appropriate practices and culturally relevant teaching, well grounded in human development and brain-based research, are a pervasive force in our educational system. Yet the tension between the views of education as nurturing a child's intelligence and curiosity and education as a means to transmit the knowledge, skills, and social and moral rules of the culture (Kohlberg & Meyer, 1972), often creates an environment that makes their implementation problematic. Teachers may feel caught between emphasizing skills and meaning, between coverage and "the having of wonderful ideas," and between raising standardized test scores and nurturing multiple intelligences. As Apple (1992) has argued, school curriculum is not neutral knowledge. "Rather, what counts as legitimate knowledge is the result of complex power relations and struggles among identifiable class, race, gender, and religious groups (p. 4). In short, schooling takes place in a wider political context, one in which currently there is a great deal of anxiety and controversy regarding the nature of schooling, the economy, and our society, itself.

Current challenges. We are in the midst of a growing national crisis. Families are increasingly unable to raise children who are "ready" for school and schools are said to be unready for children. A belief that our faltering educational system is putting our nation at risk economically has gained popular appeal, resulting in the promotion of national and/or state standards and assessments as a

means for improving curriculum and student performance in school. A number of educators and researchers, however, have raised serious concerns about "top-down specifications of content linked to tests" (Darling-Hammond, 1994, p. 478). For example, many educators argue that such attempts to "stamp a uniform education" (Bowman, 1994) on students leaves the learner out, making it hard for him or her to build new knowledge and new understandings (Goodman, 1994; Meier, 1995; Nieto, 1994). A 1992 study by Poplin and Weeres (cited in Nieto, 1994) concluded that students became more disengaged as the curriculum, texts, and assignments became more standardized. This is particularly true for poor and minority students, who often start out farthest from the standard and for whom "turning standards into simple yardsticks can be devastating" (Goodman, 1994, p. 39).

In addition, top-down mandates, in which the "top does the critical intellectual work and the bottom is left with doing the 'how-to'" (Meier, 1995, p. 370), leave teachers and families out of the dialogue of what is important to know and why it is important. While the "assumption of hierarchical intelligence' (Darling-Hammond, 1994), that is, the belief that higher levels of government are "smarter" than lower levels, is still endemic to our educational system, school reform efforts that do not include all the key players have been unsuccessful in creating a school climate that promotes learning (Meier, 1995; Newmann, 1993). Darling-Hammond (1994 argues that when standards are used as "test specifications" for state and local assessments:

> . . . they are likely to impede local reforms currently underway, stifle promising innovations, disconnect with the real learning needs of many students, suffer misuse at the hands of policymakers, and exacerbate inequalities in children's access to learning opportunities (p. 488).

The call for standardization and testing to address issues of the quality of education ignores the fact that the cause for much of the difficulties our schools are experiencing lies outside the school building, embedded in increasing social and economic inequalities, unequal access to educational opportunities, limited job opportunities, and a declining standard of living for the majority of Americans (Kozol, 1995; Berliner, 1992; Schneider & Houston, 1993). In a study by Novick (1996), a central concern voiced by staff of nine Northwest schools was how to address the challenges of equity and excellence in the context of diminishing resources and increasing hardship for many families. O'Connell (1996) writes:

> What is wrong with such initiatives (mandating national or state standards) is that they completely fail to address the most severe problems in our schools. The single factor that most frustrates any teacher in reaching his or her goals is the relentless intrusion of social problems into the classroom (p. D-7).

A rapidly growing number of children live in families who live in substandard housing and dangerous neighborhoods, without adequate nutrition, health care, or child care. The statistics are stark:

- Between 1973 and 1999, young families in which parents are 30 years old or younger, saw their income plunge by one third. While one in four children under six lives in poverty, an astonishing 40 percent of children in young families are poor (Johnson, Sum & Weill, 1992).

- Nearly one in two poor children lives in extreme poverty, in families with incomes below one-half the poverty line and this proportion has risen steadily from 31 percent in 1975 to its present high (Children's Defense Fund, 1995).
- A majority of poor children under six have parents who worked full-time or part time. A full time wage earner in a family of four making minimum wage would generate income worth 52 percent of the poverty line. With the Earned Income Credit, the family's income would reach only 66 percent of the poverty line (National Center for Children in Poverty, 1995).
- Between 1969 and 1989 the number of young white men earning less than the poverty figure for a family of four rose from one in 10 to almost one in four. For African American men, the comparable figure rose from 26 percent to 37 percent; for Hispanics, from 25 percent to 40 percent (Schneider & Houston, 1993).
- Affordable housing for low-income families is increasingly difficult to find. There are two applicants for each subsidized housing unit, with further cuts proposed by the legislature. Over half of poor families spent more than half their income on housing (Children's Defense Fund, 1995).

Clearly, intervention to ameliorate the current social ills must address a number of levels, including child, family, school, and community. A blend of social programs which provide a true safety net for all families is essential: family leave, adequate nutrition, affordable housing, health care, parenting education, education and job training, and above all, jobs that pay a living wage. Schools, then are neither responsible for our current social and economic woes, nor can they "fix" them. Yet, schools, provided with adequate resources and in partnership with families and their communities, can create a safe, nurturing school environment that fosters individual resiliency, enhances children's life choices, and prepares children to work toward a more just and caring society.

Schooling for a democratic society. But what about standards? How do we know that we are meeting valid educational goals? Whereas a number of educators are concerned that standards, based on in industrial model of schooling, with an emphasis on uniformity, can be harmful to teaching and learning, well-conceived curriculum standards can be used as "tools for informing curriculum building, teaching practice, and assessment" (Darling-Hammond, 1994, p. 488). According to Bredekamp & Rosegrant (1995), "well-developed national content standards would be advantageous for at least five reasons. They have the potential to provide the curriculum with important content, conceptual framework, coherence, consistency, and high expectations" (p. 9). Rather than creating a wall around the curriculum, such flexible standards can provide a framework for local educators to reflect on and evaluate their own efforts to change their teaching practices to better meet the needs of children and families in their own communities.

Researchers on school restructuring have identified a number of commitments and competencies that lead to improved outcomes for children, including: (a) high expectations for all children (Newmann, 1993; Benard, 1993; Nieto, 1994); (b) a commitment to learn from and about children, building on the strengths and experiences that children bring to school (Bowman, 1994; Delpit, 1995; Ladson-Billings, 1995; Meier, 1995); (c) "giving wider choices and more power to those closest to the classrooms" (Meier, 1995, p. 373); and (d) the development of schools as a caring community (Lewis, Schaps & Watson, 1995; Meier, 1995; Newmann, 1993), defined by Lewis,

Schaps & Watson (1995) as: "places where teachers and students care about and support each other, actively participate in and contribute to activities and decisions, feel a sense of belonging and identification, and have a shared sense of purpose and common values."

Efforts to create this environment must include not only an emphasis on the traditional "3 Rs," but also a great deal of attention to and time for reflection, respect, and building relationships. As Deborah Meier, former director of the highly successful and innovative Central Park West schools, notes, "Caring and compassion are not soft, mushy goals. They are part of the hard core of subjects we are responsible for teaching" (p. 63). She points out that, "although the current national concern over schooling may have little to do with democracy, the reforms (described above) have everything to do with it" (p. 373).

The principles of developmentally appropriate practices -- creating meaningful learning experiences that enhance the development of multiple intelligences and perspectives and a "sense of wonder," establishing family/school/community partnerships based on mutual respect, and creating a caring, culturally diverse, democratic learning community -- have their roots in good early childhood practice. But it is clear that they are not just for young children; they are principles to live by.

NEXT STEPS

In order to unite knowledge from research with input from effective practitioners, the Child and Family Program of the Northwest Regional Educational Laboratory will identify and work in partnership with five elementary sites in the Northwest who are demonstrating exemplary practices in early childhood education. NWREL staff will collect and synthesize information on state-of-the-art practice at these sites. Following the data collection phase, NWREL will design, develop, and disseminate two teachers guides to developmentally and culturally appropriate practices, one guide for birth to four and one for teachers of children five through eight years of age. In addition to the guides, curriculum materials and teaching strategies that reflect "best practices" will be catalogued and displayed on the Internet for use by early childhood educators and other practitioners serving young children in the region.

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